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Loma Linda University Health

Loma Linda University
Loma Linda University Medical Center
Adventist Health System / Loma Linda

TODAY

Wednesday, June 28, 1989

Volume 2, Number 13

LLU president Norman J. Woods, PhD, answers questions from La Sierra campus faculty members following the Board of Trustees' meeting on Thursday, June 22.

University trustees defer campus planning decision

The Loma Linda University Board of Trustees, meeting on Thursday, June 22, deferred to the August board meeting a decision regarding the future structure of Loma Linda University.

Present at the morning session of the meeting were members of the Board of Trustees for Loma Linda University Medical Center, who had requested to meet with the University's Board of Trustees for a portion of the meeting. The Medical Center board members presented their view that each campus should become separate legal entities with distinct names.

In the afternoon session, R. Dale McCune, EdD, vice president and provost for the La Sierra campus, the deans of the La Sierra campus schools, and the dean of students for the La Sierra campus, expressed their desire to remain as one University with two campuses.

In addition, Kay Andersen, EdD, former executive director of the Western Association of Schools and Colleges (WASC) accrediting team (now retired), discussed with the trustees the history of LLU's accreditation and answered questions from the board relating to accreditation.

In a report to the faculty on the La Sierra campus following the board meeting, Loma Linda University president Norman J. Woods, PhD, said that the board would meet again at the end of August — possibly in a retreat situation — for a period of three days to discuss, and probably come to a conclusion, the future organization of Loma Linda University.

"I think it is most appropriate that the board take the time necessary to make this important decision," Dr. Woods said at the meeting. Other faculty members on both campuses of the University expressed similiar sentiments.

One proposal that had been looked into was a University with two campuses with two presidents — each campus with its own operating boards, who in turn would report to a "super" board. However, it was determined that this plan was not viable under California corporate law.

"It comes down to the fact that basically the La Sierra campus is totally committed to two campuses and one University, while the Loma Linda campus is totally committed to two separate institutions," Dr. Woods reported to the La Sierra faculty.

"We have solid agreement on each campus. It is very clear what each campus wants," Dr. Woods says. "Clearly, the jury is still out. But right now, the Board of Trustees has a clear mandate from each campus on what they feel should be done."

Dr. Woods said that in talking with the Loma Linda campus deans, Neal C. Wilson, chairman of the Board of Trustees and president of the General Con-

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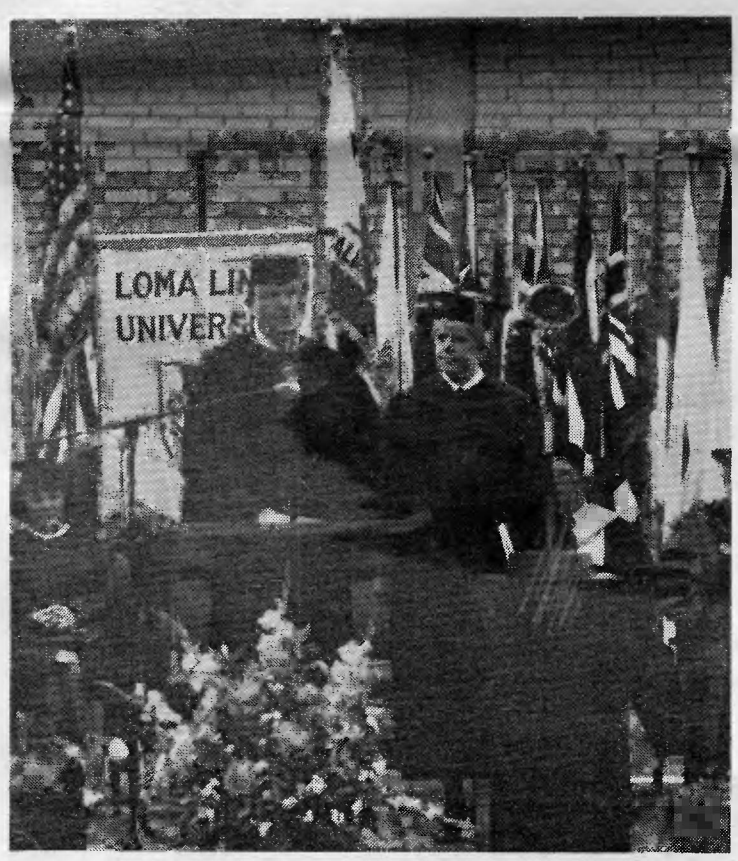

Helen Thompson, PhD, vice president for academic administration, (right) participates in the 1989 spring commencement ceremonies with President Norman J. Woods, PhD. Dr. Thompson is retiring on June 30 after nearly 40 years in Christian higher education.

Dr. Helen Thompson retires after nearly 40 years in education

This summer will mark the retirement of one of the most able educational administrators of Loma Linda University and of the Seventh-day Adventist Church.

After dedicating nearly 40 years of her life to the furthering of Christian higher education, Helen Ward Thompson will retire from her current post as vice president for academic administration on June 30.

Dr. Thompson joined Loma Linda University in 1984 at a time when the University, like all American institutions of higher education, was plagued by both declining enrollments and a national atmosphere in which professional and monetary strivings hampered efforts to provide a diverse, liberal education.

The buzzword throughout academic circles that year was "retrenchment." As Loma Linda University leaders directly confronted the difficult issue, they called on Dr. Thompson to join their administrative ranks as one who had proven herself to be a distinguished scholar, an effective administrator, and a determined promoter of excellence in education.

Dr. Thompson pursued her master's and doctoral education at Stanford University, where she studied as a Milton scholar. She later did post-doctoral work at Oxford through Worchester College, and at Princeton University on a fellowship from the National

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WHAT'S INSIDE...

Administrators of the School of Allied Health Professions and Suzhou Medical College in the People's Republic of China signed a preliminary agreement on June 2 to initiate a respiratory care center at the medical college. See story and additional photographs on page 15.

TODAY AT LLUMC

Medical Center formulates mission statement, goals, and action plan

In recent months a mission statement for Loma Linda University Medical Center has been formulated (see accompanying box). Medical Center administration hopes that all employees will become familiar with it.

In addition, goals and an action plan for accomplishing them have been developed for 1989.

"This is something that we will be doing on an annual basis," says Ron Anderson, senior vice-president and chief operating officer. "The development of the goals and action plan was a joint effort by administration, medical staff, and department heads. These three groups all will have input into developing the goals and action plan for each year in the future.

"We will start working on those for 1990 this fall," he continues, "and they should be distributed for employees to see by January, 1990, after board approval.

"The reason we are writing down our goals and action plan," Mr. Anderson explains, "is so that everyone will have a clear idea of what we are working toward, what we want to accomplish. By putting them in writing, they should be clear, and everyone can be working toward the same end result."

Following are the goals and action plan for 1989:

I. ***Mission and Spiritual Values.*** Goal: Effectively communicate the mission of Loma Linda University Medical Center to our employees, patients, community, and church.

(A) Mission. Supporting Actions: (1) Conduct mission-awareness sessions with all employees; (2) Include mission statement in new-employee orientation; (3) Develop and distribute mission cards for employees and physicians. (4) Communicate LLUMC's mission statement to the church community through church publications; (5) Develop wall plaque for hospital lobby.

(B) Spiritual Values. Supporting Actions: (1) Establish spiritual-emphasis objectives for the Medical Center and its departments; (2) Review and / or develop programs directed at strengthening the spiritual mission of the Medical Center; (3) Assess the effectiveness of spiritual-emphasis programs in meeting identified needs and make changes as indicated; (4) Develop a program directed at providing practical Christian assistance to patients.

II. ***Financial Performance.*** Goal: Assure that LLUMC meets or exceeds acceptable levels of financial performance. Supporting actions: (1) Achieve annual operating income of 6 million dollars; (2) Achieve cash reserves of 35 million at December 31, 1989; (3) Develop and implement methods to objectively determine the relative merit of capital requests; (4) Establish a capital-expenditure-review committee.

III. ***Quality of Service.*** Goal: Develop and implement formal quality-service measures and monitoring systems to assure that all departments are perceived as routinely providing quality service.

Supporting actions: (1) Ensure improvements in quality of service through: (a) implementing quality indicators of service for all departments; (b) monitoring performance and taking corrective action; (c) developing patient questionnaire to establish and monitor trends in patient satisfaction; (d) developing physician questionnaire to establish and monitor

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Our Mission

The mission of Loma Linda University Medical Center is to continue the healing ministry of Jesus Christ, "To Make Man Whole," in a setting of advancing medical science and to provide a stimulating clinical and research environment for the education of physicians, nurses, and other health professionals.

Our Patients

Our first responsibility is to our patients who must receive timely, appropriate medical care with consideration for their privacy, dignity, and informed consent.

Our Employees

We recognize our employees as a valued resource; therefore, we will strive to provide to every employee a harmonious and supportive workplace. We will encourage and reward excellence in our employees to achieve their maximum potential.

Our Physicians

We support our physicians, and other professionals, with staff, technology, and facilities within our financial resources. We value and respect the professional skills of our physicians and depend on their loyalty to the mission of the institution.

Our Students

We actively support the training of tomorrow's health care professionals. We will work under the guidance of the School of Medicine of Loma Linda University to provide appropriate educational opportunities to medical students, residents, and fellows. We will work in close cooperation with the other health-related schools of Loma Linda University by making available our facilities and expertise.

Our Communities

We will develop and maintain our facilities so as to enhance the quality of life in the local, national, and world communities. We support selected worthy issues and organizations as a corporate civic responsibility.

Our Future

We will secure the future educational, scientific, and financial viability of the Medical Center by maintaining quality programs and supporting selected centers of excellence that will enable the institution to achieve a leading position in health care, education, and research.

Our Church

We uphold the values of the Seventh-day Adventist Church and its rich traditions by caring for the sick, promoting healthful living, awakening inquiry, and spreading the gospel of Jesus Christ.

Our God

We honor our God, the Father, the Son, and the Holy Spirit by demonstrating Divine compassion and kindness through our care of the sick and by respecting and encouraging spiritual values.

LOMA LINDA UNIVERSITY MEDICAL CENTER

Loma Linda, California 92354 (714) 824-0800

J. Frank Wilson, MD (right), president of the Juan A. del Regato Foundation, presents the del Regato Foundation Gold Medal to Robert R. Wilson, PhD, pioneer researcher on the radiological use of protons for cancer therapy, at the Thirteenth Annual del Regato Lecture, held this year at Loma Linda, on June 2. Dr. Robert Wilson was the featured speaker.

LLUMC hosts proton pioneer at June 2 del Regato Lecture

Loma Linda University Medical Center hosted Robert R. Wilson, PhD, pioneer in research on the radiological use of protons for cancer therapy, as speaker at the Thirteenth Annual del Regato Lecture, on Friday, June 2, in the Medical Center's lobby-level amphitheater.

The Juan A. del Regato Foundation was established by colleagues and friends of Dr. del Regato to sponsor educational activities in cancer. Since 1977, the Foundation has sponsored an annual lecture in honor of this distinguished physician, scholar, and teacher, The lecture is offered through host academic institutions in different cities. This year, Loma Linda University was chosen for this distinction.

Dr. del Regato, who was born in Cuba, received his cancer education at the Curie Foundation and Radium Institute in Paris. He moved to the United States nearly 50 years ago, and became a world leader in oncology and radiotherapeutic aspects of cancer. Dr. del Regato is emeritus professor of radiology at the University of Florida, and Veterans Administration Distinguished Physician.

Dr. del Regato was present at Loma Linda for the lecture, which occurred at the same time that he was celebrating his eightieth birthday.

This year's lecturer, Dr. Wilson, has studied the structure of matter for more than 50 years. Cur-

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This is the identification for AIM (Advancement In Making Man Whole), the Medical Center's new employee-recognition program. Look for posters around the Medical Center and additional information in future issues of *TODAY*. The program will begin soon.

W. Ross Adey, MD, honored with D'Arsonval Award at annual meeting

W. Ross Adey, MD, associate chief of staff for research and development at Jerry L. Pettis Memorial Veterans Hospital, and distinguished professor of medicine at Loma Linda University's School of Medicine, was honored as the recipient of the D'Arsonval Award at the annual meeting of the Bioelectromagnetic Society in Tucson, Arizona, on June 18.

The award is given to persons who make distinguished contributions to the discipline of bioelectromagnetics.

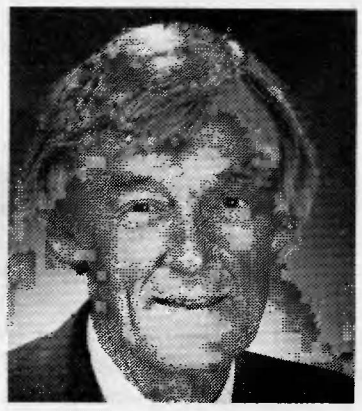
Dr. Adey was selected because of his experimental and theoretical work on cell-membrane transduction of weak electric signals and his role as a leader in research in the biological effects of electromagnetic energy.

Work from Dr. Adey's laboratory has shown that weak electromagnetic signals can affect animal behavior, alter tissue levels of calcium, and alter cell enzyme activity. His work also suggests that electromagnetic fields may influence the cancer process as a result of effects on cellular protein functions, although the fields are far too weak to have a direct effect on the DNA molecules in the cell nucleus.

The Bioelectromagnetics Society is an 11-year-old international organization of physicians, biologists, and engineers interested in the interaction of biological systems with electric and magnetic fields. The range of studies in bioelectromagnetics includes naturally occurring electric and magnetic fields and the effects of man-made fields on man and laboratory animals and tissues. Bioelectromagnetics involves a wide range of frequencies from the very low frequencies typical of natural body processes and electric power systems, to the high frequencies associated with radio, telecommunications, microwave, and infrared radiation.

The award is named after Arsene D'Arsonval (1851-1940), a French physician, physiologist, and physicist, whose wide-ranging interests encompassed muscle physiology, low-temperature physics, and numerous inventions, including diathermy and an electric meter, which bears his name.

Dr. Adey has published numerous papers on the anatomy



W. Ross Adey, MD

of the limbic system and especially on the hippocampus in man and animals. These efforts brought appointments at the University of Melbourne (1955-56) and the University of California, Los Angeles (UCLA), where he was professor of anatomy and physiology (1957-1977). At UCLA he also was director of the Space Biology Laboratory (1961-1974), and director of the Laboratory of Environmental Neurobiology at the Brain Research Institute (1974-77).

He pioneered the use of computers for spectral analysis of brain waves and techniques for time-series analysis of brain activity. Dr. Adey has published more than 400 scientific papers probing the nature of cerebral organization.

He has served on numerous committees or as a consultant, including for the U.S. Congress, the Veterans Administration, National Institutes of Health, NASA,

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Patient relations department conducts employee survey

During Patient Relations Awareness Week in April, the LLUMC patient relations department conducted a "taking stock" survey (following their theme, "It Only Takes a Moment"). Approximately 200 surveys were distributed randomly, and 66 were returned.

"It seemed time," says Jean Fankhanel, patient relations coordinator, "to measure the perceptions of our employees as one customer group. This old adage speaks volumes: 'You can't tell you're winning without a score.' "

The survey asked for impressions of Loma Linda University Medical Center — how often the responding employees thought other employees show the following behaviors and how often they thought they themselves exhibit the same behavior:

1. smiling at patients, visitors, and one another;
2. making eye contact with patients, visitors, and one another;
3. introducing themselves to patients;
4. calling people by name;
5. helping people who look confused.

The five categories of response were "hardly ever," "a little," "a lot," "almost always," and "not in a position to do this."

"This survey," says Mrs. Fankhanel, "was not meant to be perfect, only provocative — a check to see how we view our own service-oriented behaviors."

All of the survey participants used the first four categories; no one answered, "not in a position to do this." From 3 percent to 9 percent said they and other employees "hardly ever" practiced these identified behaviors.

On the scale from "a little" to "almost always," the employees consistently perceived themselves and others as practicing good customer-relations behavior, *i.e.*, from 3 percent to 28 percent of respondents saw themselves as showing "a little" smile, eye contact, etc. The "a lot" category showed a range of 23 percent to 44 percent of employees demonstrating customer-relations behavior.

By the time the respondents reached the "almost always" category, they analyzed their own behavior as being consistently better than that of other employees. They said that they exhibited the specific behaviors 16 percent more of the time than did other employees. The frequency range went from 33 percent to 48 percent of the time when observing other employee behavior to 45 percent to 64 percent when observing their own behavior.

"Perhaps," suggests Mrs.

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MC administrators answer questions

Each month, a number of randomly selected LLUMC employees are invited to meet with two Medical Center administrators for breakfast or for dinner in the Medical Center cafeteria. The administrators present an update on what is going on at the Medical Center, and the employees have an opportunity to ask questions. The meetings are sponsored by the LLUMC department of human resource management.

At a dinner meeting on May 31, Bill Easterbrook, vice-president for finance, and Chris Boskind, vice-president for support services, presented the following update.

The southwest wing is substantially completed and largely occupied, with the exception of the lobby level and the second floor. Operating suites on the second floor were to begin being used sometime around the middle of

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IN BRIEF

LA Chamber Ballet to perform at Redlands Bowl

Performing in the Redlands Bowl for the first time on Tuesday, July 11, at 8:15 p.m., the Los Angeles Chamber Ballet will show their unique, fresh, breezy style with a spirit of adventure. This program is supported in part with funds from the California Arts Council, a state agency, and the National Endowment for the Arts, a federal agency. Bowl programs are free, but a goodwill donation is appreciated.

CPR classes and CPR testing and recertification offered

Life Support Education will offer a CPR class on June 29, from 8:30 a.m. to noon, 1 p.m. to 4:30 p.m., and 6 p.m. to 9:30 p.m., at Randall Visitors Center, corner of Anderson Street and University Avenue, Loma Linda. CPR testing and recertification will be offered on June 22, at 8 a.m., 10 a.m., 1 p.m., 3:30 p.m., 5:30 p.m., and 7:30 p.m.

Male choral group to perform concert at University Church

A 35-member male choral group, Christian Edition, will perform an hour-long concert of traditional Christian hymns on Saturday, July 1, at the University Church. Based in Glendale, Christian Edition is comprised of 25 male singers who range in age from 23 to more than 60. They belong to several Seventh-day Adventist and other Christian churches throughout the greater Los Angeles area.

"Christian Edition represents a diverse background — physicians, computer operators, teachers, nurses, systems analysts — but one thing in common is love of singing," says Calvin Knipschild, the group's director.

The group, formed more than six years ago, has performed twice in the Dorothy Chandler Pvilion, at the finals of McDonald's "Gospel Fest '85," and at the most recent world session of the Seventh-day Adventist Church in New Orleans.

The free public concert will begin at 7:00 p.m. The church is located at 24701 University Avenue in Loma Linda.

Grief-recovery seminar for adults begins July 10

A grief-recovery seminar for adults who have experienced the loss of a loved one through death will be offered by LLUMC chaplains once a week for five weeks, beginning Monday, July 10, with a choice of an afternoon or an evening session. Fee: $20. Registration by telephone required. (Location of the seminar will be given at the time of telephone registration.) Attendance is limited. Call 824-4367, Monday through Thursday, from 8 a.m. to 5 p.m.; Friday, from 8 a.m. to 12 noon.

Physics department awarded $12,000 National Science Foundation grant

The National Science Foundation (NSF) has notified Loma Linda University's department of physics that they have been awarded a $12,000 grant through the NSF's Instrumentation and Lab Improvement Program.

This national program, now in its second year, provides funds which will be matched by LLU contributors for a total amount of $34,000. The physics department will use this money to fund a project they have titled "Nuclear Instrumentation and Measurement for General Physics Labs."

This is the final and nuclear phase of CHAMP (Computer Hardware for Measurement in Physics), an ongoing project to equip the general physics lab at LLU with computers that will allow students to gain experience with nuclear radiation as it is used for diagnostic and therapeutic purposes in health care.

By custom building their own electronic hardware and writing their own software, the physics department plans to have this program operational by fall quarter 1990, when approximately 120 students per year will benefit from this technology. In the meantime, the department will employ students to assist in the development of the needed electronics and software.

Edwin Karlow, PhD, chairman of the department of physics and director of the nuclear phase of this project, will design and coordinate the construction of the electronic hardware. Ivan Rouse, PhD, who is the director of the CHAMP program, will serve as principal author for the software, and Richard Bobst, associate professor, will be in charge of developing the accompanying course materials for the program.

"The fact that we proposed to build our own equipment seemed to be a major positive factor in our being awarded this grant," commented Dr. Karlow. One NSF reviewer said in his evaluation that these physicists "have the all too-rare skills of being able to build and develop much of their own laboratory equipment. There is no question that they can carry out this program."

"We are especially pleased about receiving this grant," says Dr. Karlow, "since this was the first year that LLU was eligible to apply, and the chances of our being one of the 1,200 recipients of this grant were about 1 in 6." He adds that the responses from the NSF reviewers were very gratifying, since four gave it a rating of excellent, and three said it was very good.

Crosscountry trip by former employee to be anti-drug crusade

Former departmental secretary for the vice president for academic administration (then LLU president Norman J. Woods, PhD) Helen Hayes is planning a crosscountry bicycle trip to promote *Listen* magazine's "Community Crusade Against Drugs."

Ms. Hayes will leave from Newport Beach in early July and travel cross country to Virginia Beach, Virginia. She hopes to complete the trip within three months.

As Ms. Hayes travels across the United States, she will be lecturing and showing films and videos in churches, hospitals, businesses, and schools on drug prevention.

She will be followed by a Pace Arrow motor home, loaned to Ms. Hayes by Glenn Kumar, president of Fleetwood Enterprises, Riverside, the manufacturers of Southwind and Pace Arrow motor homes.

The Loma Linda Market is providing a supply of food for the time that she will be traveling. Currently, Ms. Hayes is raising funds for the cost of the gasoline for the crosscountry trip, and is in need of a volunteer driver for the motor home.

Individuals wishing to learn more about the project are invited to write to Ms. Hayes at Box 228, Loma Linda 92354 or phone her at 796-6367.

'Gateway to College' program now accepting applications

The College of Arts and Sciences' "Gateway to College" program, now in its second year, is accepting applications for a four-week college preparation program to begin in August 28.

Designed to assist students who want extra preparation before beginning their freshman year in the fall quarter, the Gateway program uses an individualized process to give students intensive help in both academic subjects and social adjustment.

"Gateway to College" offers classes in reading improvement, introduction to composition, introductory algebra, intermediate algebra, and personal study skills.

Students may register for a maximum of nine credit hours of classwork. By satisfactorily completing the necessary remediation through the Gateway program, students may ensure their placement in the regular collegiate program for the fall quarter.

The tuition charge for this four-week program is $50 per unit for students who live in the residence halls, and $785 per unit for students who live off campus.

LLU is committed to making students' entrance into higher education a positive experience, and the "Gateway to College" program offers a way for students to improve their chances of success in their chosen academic program.

For additional information, contact the admissions marketing office at 1-800-422-4558.

Dr. Ross Adey. . .

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NRC, the President's Scientific Advisory Committee (PSAC), Biology and Medicine Panel, Electromagnetic Radiation Management Advisory Council, the National Council on Radiation and Protection and Measurements, the US / USSR Exchange Program, and World Health Organization.

Dr. Adey also has served on the editorial boards of a number of scientific journals.

Next *TODAY*

July 12

Sigma Xi recognizes fifteen new members at annual banquet. . .

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biology, School of Medicine; Vicky Ras, PhD, School of Medicine; Barry Taylor, PhD, chairman, department of microbiology, School of Medicine; and Ulf Wikesjo, DDS, department of periodontics, School of Dentistry.

"The procedure for membership in the Loma Linda University chapter of Sigma Xi requires nomination by a chapter member and seconding of the nomination by another member," Dr. Teel says. "The completed nomination form is reviewed by our local membership committee and following approval it is sent to Sigma Xi headquarters in New Haven, Connecticut Upon their final approval, the nominee is recognized at the annual Loma Linda University chapter Sigma Xi banquet."

Qualification for full membership requires a demonstrated research ability which is generally interpreted to include a doctoral thesis in a scientific subject or two papers — one of which identifies the candidate as the principal author. Qualification for associate membership requires evidence of research experience resulting in a written report or a substantial oral presentation.

In addition to the recognition of new members, Roland Aloia, PhD, associate professor of anesthesia, was awarded the annual Sigma Xi Research Merit Award for a paper entitled "Lipid Composition and Fluidity of the Human Immunodeficiency Virus."

This particular paper was published in the February 1988 *Proceedings of the National Academy of Science.*.

Dr. Aloia's research demonstrated for the first time that the membrane lipids of the AIDS virus are similar to other envelope viruses suggesting that the infectivity process of the AIDS virus is similar to other envelope viruses.

This knowledge provides a basis for investigating the antiviral activity of various lipid-soluble drugs which are capable to perturbing the lipid envelope surrounding the AIDS virus.

The development of highly effective therapeutic modalities for the treatment of AIDS patients and for those at risk of acquiring the virus is the prime objective of Dr. Aloia's research.

Sigma Xi, a scientific research society, was founded in 1886 to reward excellence in scientific research and to encourage a sense of companionship and cooperation among scientists in all fields.

Since its founding, Sigma Xi has grown to include over 500 chapters and clubs across North America. The society now has approximately 115,000 active members (including associate members). Chapters and clubs are found wherever scientific research is undertaken in North America.

Good news given about future of dentistry by recent AADS report

A recent report of the American Association of Dental Schools (AADS) proclaimed good news for dentists, dental schools and their students and faculty: "Dentistry will continue to be a viable profession . . . government and private studies suggest a greater need for dentists in the year 2000 than today."

The report further outlines that there are presently more than 140,000 practicing dentists in the United States; 88 percent of those are in private practice with an average net income between $70,000 and $100,000 (depending on whether they practice general or specialty dentistry, respectively).

In addition, the AADS report states that 58 percent of dentists own their practice within four years of their graduation from dental school, and after six years that figure jumps to 90 percent.

Other good news for the dental profession, reported in the January 89 issue of the Bulletin of Dental Education, shows a significant slowing of the 13-year decline in the number of students taking the Dental Aptitude Test (DAT) and, thus, applying to dental schools.

Dr. Eric Solomon, assistant director of the AADS, indicated that "if the dentists' incomes continue to outpace inflation and if more dentists continue to report that they are too busy," applicant pool trends may continue to turn around and become more healthy.

For the record

The editors of *TODAY* will print corrections on errors of fact. Please send corrections, in written form with signature, to:

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An invitation

The editors of *Today* welcome suggestions for news or feature stories. Please call 824-4526, or write:

Editor, *TODAY*
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Loma Linda, CA 92350

Dr. Thompson retiring after nearly 40 years in higher education . . .

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Endowment for the Humanities.

Three Seventh-day Adventist institutions have been strengthened by Dr. Thompson's service. Her initial post was that of instructor of English and assistant dean of women at Loma Linda University's La Sierra campus (then La Sierra College). Following her graduate education, she served as dean of women, professor of English, and later chaired the department of English at Walla Walla College for ten years. In 1976, she assumed the position of academic dean at Southwestern Adventist College following her marriage to Thomas Thompson, DDS. She returned to Walla Walla College in 1979 as director of alumni affairs, a position she held until she came to Loma Linda University.

When Dr. Thompson arrived at Loma Linda, she brought with her more than prestige and experience in the academic circles; she carried with her an impassioned commitment to the development of a world-class Seventh-day Adventist university which Adventist youth would aspire to attend.

Frustrated by the stagnation plaguing most Adventist schools, she vowed that Loma Linda would return to the foundation of academic excellence — quality teaching.

In a meeting with faculty shortly after her arrival, Dr. Thompson stressed that only by improving the quality of educational offerings could Adventist education survive. She stated with regard to the public calls to "save" Adventist schools, "We have published glowing tributes to SDA Christian education, placed ads in hopeful places, leaned on the ministry to support our efforts, and spent untold hours discussing how we are ten ahead or seven behind last year, yet sadly, in all of this, I have heard little talk of strengthening course offerings, of excellence in teaching. It's time now — the time has come — to turn our attention to the quality of our teaching."

With that charge, Dr. Thompson has for the past five years vigorously sought to promote the academic integrity of Loma Linda University. Under her leadership, the University has implemented new, University-wide general education requirements strengthening core requirements in all areas of study. The University has also implemented more effective procedures for faculty development and evaluation, a new pay scale for the La Sierra campus faculty, and a new learning resource center for the Loma Linda campus. It has also been under Dr. Thompson's direction that three new campus entities have been created — the School of Business and Management, the School of Religion, and the adult education program, known as ABLE.

Each of these have strengthened the University in both academic and organizational matters. Other new programs added under Dr. Thompson's leadership include master's degrees in physical therapy, oral implantology, family life education, and social work; bachelor's degree programs in several schools; and new associate in arts programs in various areas within the School of Allied Health Professions and in the College of Arts and Sciences.

An area of University accomplishment during the past five years in which Dr. Thompson takes particular pride is the concerted new effort to promote academic research among the faculty.

The University has established an office for sponsored research, conducted research workshops to support faculty efforts, and designated an annual "research week" to highlight the accomplishments of the faculty.

Such efforts have proven tremendously effective in spurring research activities within each of the University's schools.

During the academic year 1987-1988, Loma Linda University faculty made a one-year increase in research projects of 19 percent; 20 percent in principal investigators, 27 percent in presentations, and 42 percent in publications.

Over the last five years, research projects have increased by 64 percent, principal investigators by 46 percent, presentations by 64 percent, and publications by 72 percent.

Under the direction of Robert Dunn, PhD, professor of English, and Bailey Gillespie, PhD, professor of theology, a Loma Linda University Press has also been created, giving further support to faculty projects.

Dr. Thompson will look back at her time at Loma Linda with pride in the many accomplishments of the University and with appreciation for the many dedicated people with whom she has worked.

She is particularly grateful for having had the opportunity to work with the University's deans, whom she regards as an absolutely outstanding cadre of leaders.

"They have differing managerial styles, yet are all dedicated to building schools that are academically distinguished and spiritually undergirded," Dr. Thompson says.

"They really care, people don't always realize just how much they care and how hard they work."

Dr. Thompson also lauds the staff with whom she has worked — Beverly Hessel, Dan Lamberton, and John Jones, as being able professionals and dear friends.

Dr. Thompson and her husband will be returning to Walla Walla where they own a scenic farm. While they are enjoying the quiet beauty of the Washington countryside, Dr. Thompson's fervent commitment to academic excellence will remain the goal toward which LLU must continue to progress.

She has helped to steer the University toward that goal and will continue to share with many the dream of a comprehensive world-class University. Her efforts will be greatly missed.

Thirteenth Annual del Regato Lecture . . .

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rently serving as professor of physics at Cornell University, Dr. Wilson has taught at Princeton, Harvard, the University of Chicago, and Columbia.

He helped to organize Los Alamos Scientific Laboratory and was head of its research division. While working on the design of a cyclotron at Harvard, he suggested the radiological use of protons for cancer therapy in a landmark paper in 1945.

Dr. Wilson was the first director and presently is director emeritus of Fermi National Accelerator Laboratory (often referred to as Fermilab), a U.S. Department of Energy physics research facility in Illinois. Fermilab has recently built and is now completing final testing on the proton beam accelerator that will be used for cancer therapy at LLUMC.

Because of the significance of his work, Dr. Wilson has received the Elliot Cresson Medal, the National Medal of Science and the Fermi Award, which is the highest award given to scientists by the United States government and is presented by the president of the United States.

Dr. Wilson, who worked with Dr. J. Robert Oppenheimer on the development of the atomic bomb during World War II, said that because of his guilt about the deaths of perhaps 200,000 Japanese from the bomb, he turned his thoughts toward how radiation might be used in a beneficial way.

Following Dr. Wilson's lecture, entitled "History of Charged Particles Therapy," J. Frank Wilson, MD, president of the Juan A. del Regato Foundation, presented Dr. Robert Wilson with the del Regato Foundation Gold Medal.

When Dr. Wilson expressed his appreciation to Dr. Frank Wilson and Dr. del Regato, Dr. del Regato responded, "I am honored to have your name and mine linked on this occasion."

James M. Slater, MD, professor and chairman of Loma Linda's department of radiation sciences, and the project director of LLUMC's proton cancer-treatment center scheduled to open in mid-1990, hosted the lecture.

Following Dr. Wilson's talk, refreshments were served, and tours were given of the LLUMC proton beam cancer treatment facility, which presently is under construction at the southeast corner of the Medical Center.

Dental student attends research conference at SUNY / Buffalo

The following student research report was written by Michael Burnham, School of Dentistry sophomore, and was reprinted, in part, from the School newsletter.

Never having been east of Dallas, Texas, this bonafide Southwesterner had no idea when I attended February's meeting of the newly formed Student Research Club that I would soon be enjoying SUNY (State University of New York), Buffalo.

I was selected as Loma Linda University's School of Dentistry representative to the 25th Annual Dental Student Conference on Research, April 9 to 11, sponsored in part by Warner-Lambert.

Fifty-nine students from dental schools in the US, Canada and Puerto Rico enjoyed red-carpet treatment by the research faculty of SUNY Buffalo School of Dental Medicine.

On April 9, the all-day conference got underway with 24 speakers and 15 topics in the field of oral medicine, behavioral sciences, periodontics and biological sciences. The majority of topics focused on periodontally related research, including a very interesting presentation on the epitopic mapping of hte polysaccaride components of *bacteroides gingivalis*, in the hope of developing an eventual vaccine.

Other periodontal topics included "Antibody and Complement Phagocytosis of Actinobacillus Actinomycetemcomitans" and "Bacterial Adherence and Anticolonization Vaccines." Additional topics included "Psychological Effects of Dental-Facial Appearance," "Saliva: A Natural Resource," "Pathogenicity Mechanism of Streptococci," and "New Frontiers in Dentistry."

The purpose of hte conference was to make students aware of the wide scope of career opportunities that are available in dental research. One unique opportunity presented on Tuesday was the NIDR (National Institute for Dental Research)-sponsored Dental Scientific Award, which upon acceptance, leads to a PhD in a dentally related biological field and a specialty certificate after five years of training.

Medical Center administrators answer employee questions...

Continued from page 3

June. The clinical laboratory on the lobby level will be moving in phases through July.

The seven floors of the southeast wing now under construction will house the proton accelerator on the lower two floors, which are below ground. The proton accelerator should be in use for the treatment of cancer patients by mid-1990.

The top five floors will be part of an approximately 220-bed children's hospital. The lobby level will contain a lobby and reception area, and ancillary services will be on the floor above it.

On the next floor will be labor, delivery, recovery, and postpartum (LDRP) rooms, which will be different from the usual labor and delivery suites. In the new area, a woman about to deliver her baby will be in the same room for labor, delivery, and recovery, and then will remain in that room for the rest of her hospital stay. Also included on this floor will be surgical delivery suites.

The two top floors will be for pediatric patients. Some pediatric facilities, such as neonatal, will remain in their present locations, but with access through the children's hospital entrance. The children's hospital will be completed as funding is available.

Some patient and visitor parking spaces have been lost because of this construction, and two areas east of Schuman Pavilion are being made into temporary parking areas.

A staff lounge was planned some time ago, but work on this was suspended for a time. Work now is resuming on a lounge area to be built on the third-floor roof area north of tower 3100 and east of the passenger elevators. It will have shaded and sunny eating and resting areas. It is hoped that this lounge will alleviate some of the congestion in the cafeteria during peak hours. The goal is to have it ready by year's end.

Directional signage is being placed at strategic points on campus.

Financially, the hospital is operating pretty well right now, although occupancy is slightly below what was budgeted. Because of revenue constraints, it is essential that we continue to think of ways of operating more efficiently and productively. Administration solicits any suggestions of how operations can be fine-tuned.

A new Medical Center logo is to be used uniformly on all Medical Center stationery, brochures, printed programs, and other printed matter. Both a formal and an informal logo will be available. Each department will receive a book giving details about the logos and their use.

A mission statement and goals and objectives for the Medical Center have been developed. (See articles elsewhere in this issue of *Today*.)

Three areas of particular concentration of excellence in care at LLUMC will be the cardiac program, the pediatrics program, and the cancer program.

Employees raised the following questions, which were answered by the administrators:

Is the proton accelerator expected to be profit-making?

Projections for this project, based on what those involved feel will be the volume of service, reimbursement, types of cancer that can be treated, etc., show that this is a viable project and will cover its costs. It is anticipated that 80 percent of the patients will be outpatients, and 20 percent inpatients.

Will there be an entrance to the cancer center in the southeast wing?

An enclosed corridor, or access gallery, will run along the outside on both the south and east sides of the Medical Center on levels B, A, 1, and 2, so that patients and visitors can get to various parts of the building without going through the units. What is now the main entrance will be moved to the south, in line with the entrance road (Ivy Lane). The entrance to the cancer center will be through a courtyard to an elevator that will take patients to the cancer clinic and the proton-treatment area. The entrance to the birthing center will be through the access gallery. In the southeast tower, there will be another entrance, with its own lobby, for the children's hospital. These changes should be completed by the end of 1990.

With the Medical Center becoming so well known, people will be coming here from all over for treatment. Are there going to be facilities for people to stay in?

We have felt that we need to address this problem, and have looked at several alternatives. We have tried to encourage hotel chains to build in the area, without success, so far, although feasibility studies are ongoing, which may result in some solution to this potential need. The Medical Center currently has no plans to build a hotel.

To alleviate congestion at the present main entrance and give patients and visitors more room, could the all-day parking area adjacent to the service parking lot on the west side of the building be made a 10- or 15-minute green zone, where employees could be dropped off and picked up?

There is space now to the west of the trailers on Campus Street for this purpose, but it isn't being utilized well by employees. At times, individuals are parking there all day, creating a problem for those who are using it for a pick-up and drop-off area.

Are more departments going to be moved to the warehouse off from Tippecanoe?

At this time, there are no plans to move any more Medical Center departments to the warehouse.

What is Community Hospital going to be used for?

Several alternatives have been discussed, but, for the time being, it will continue to be operated as a community hospital.

The former Loma Linda Manor (originally an extended-care facility) will become a behavioral medicine center, which should be in operation by the end of the year.

Are there any plans for using the property in back of Community Hospital?

Currently, it is being left for the addition of future facilities, as the need arises.

Is it true that the cafeteria has started to serve meat?

No, meat is not served in the cafeteria. Patients, however, can request to have meat served in their rooms.

The administrators reminded the employees about the suggestion boxes located in the publications bins — one near the cafeteria on the opposite wall, and one near the student / employee entrance on A level. Administration tries to respond to written questions within two weeks of receiving them. Administration also has an open-door policy and invites employees to stop by to tell them about their concerns.

School of Public Health honors graduates and inductees into Delta Omega Society

The following article was written by Glen Blix, DHSc, associate chair in the health science department, School of Public Health.

Loma Linda University School of Public Health honored its own Thursday evening, May 18. Faculty members, graduating students, representatives from University administration, and members of the Delta Omega Honorary Public Health Society gathered for the annual School of Public Health banquet honoring 1988-89 graduates and new inductees into the Delta Omega Society.

The School of Public Health anticipates 104 master and 18 doctoral graduates from the eight departments of the school for the 1988-89 academic year. This number includes those earning the MPH degree in the off-campus format at one of the nine national and four international sites.

George R. Petersen, MD, MPH, director of the San Bernardino County department of public health, presented the annual Delta Omega Lecture. In his presentation entitled "One for the Money," Dr. Petersen provided an insightful look at the present financial crisis in health care.

Gary Euler, DrPH, president of the Society's local Kappa chapter, assisted by Glen Blix, DHSc, vice president, and Barbara Frye, DrPH, secretary / treasurer, presented the nine new members: five graduating students, three alumni, and one faculty member.

The Delta Omega Society is a national public health fraternity established to recognize and encourage scholarship and research among those undertaking graduate study in public health and to recognize attainment in the field of public health. The Society was established in 1924 at the School of Hygiene and Public Health of the Johns Hopkins University.

Nominees are drawn from candidates for advanced degrees in public health who rank in the upper 25 percent in class standing. Each department nominates students, alumni, and faculty members who meet the criteria. No more than ten percent of each graduating class may be inducted into membership, with selection based upon both academic attainment and the promise of an outstanding career in public health or allied health sciences. Final selections are made by the executive committee of the Delta Omega Society.

MPH candidates Camillyn J. Dale, Mary I. Daniels, and Jochen Hawlitscheck; Jacqueline M. Hooper, a December, 1988, DHSc graduate; and Mary Ann Portis, DHSc candidate, were the 1988-89 graduate students inducted. Lisa Lowenstein, MPH; David Macfadden, MD, MPH; and Roy Vartabadien, DHSc, MPH, were the alumni inductees. Terry D. Schultz, PhD, associate professor in the School of Medicine and the nutrition department in the School of Public Health, was the faculty member so honored.

Patient relations survey results...

Continued from page 3

Fankhanel, "a conversation between Linus and Lucy in a 'Peanuts' cartoon strip says it best:

"Linus, sucking his thumb and hugging his blanket, asks, 'Why are you always so anxious to criticize me?' Lucy answers, 'I just think I have a knack for seeing other people's faults.' To which Linus responds, 'What about your own faults?' 'I have a knack for overlooking them,' Lucy explains.

"At any rate," Mrs. Fankhanel says, "a quick analysis would indicate that we're doing pretty well. We could call smiling at patients, making eye contact, introducing ourselves to them, calling others by name, and helping those who look confused 'encouraging' behaviors. With the use of encouragement, employees will find that they can make a difference."

Mrs. Fankhanel expresses her appreciation to those Medical Center employees who responded to the survey.

Faculty Notes

• **James N. Scott, EdD,** credentials officer for Loma Linda University, and **Alice Selivanoff,** credentials analyst, attended the Southern California meeting of Credential Counselors and Analysts of California on May 26 at California State University, San Bernardino. The featured speaker was Paul Longo, administrator of professional standards for the California State Commission of Teacher Credentialing. He spoke on "Legal Issues Relating to Student Teachers."

• **Roland Walters, DDS,** professor and chairman of orthodontics, School of Dentistry, was honored at a farewell dinner last month. Dr. Walters, who retires this year, was presented with a University Key and a Rolex watch. Also honored at retirement was **Larry Day, DDS,** associate professor of oral surgery. Dr. Day has been a faculty member at the School for 21 years, and will be retiring June 30.

• Four members from School of Dentistry were elected to Omicron Kappa Upsilon, the national dental honor society, for outstanding contribution to "the art, science, or literature of dentistry": **Donald Beglau, DDS,** restorative dentistry; **Jack Hansen, DDS,** restorative dentistry; **Ebenezer Johnson, DDS,** international dentistry program; and **Phyllis Woods, EdD,** former director of admissions for the School (honorary member). Honorary membership is awarded to non-members of the dental profession "who have made similar contribution to the advancement of dentistry."

Several School of Dentistry faculty were also elected to offices in the Tri-County Dental Society for the 1989-90 term: **Wil Nation, DDS,** assistant professor of pediatric dentistry (president); **Bill Heisler, DDS,** assistant professor of restorative dentistry (president-elect); **Luke Iwata, DDS,** associate professor of restorative dentistry (secretary / treasurer); and **Judson Klooster, DDS,** dean (ex-officio).

• **Leif K. Bakland, DDS,** professor and chairman of endodontics, gave three lectures at a recent meeting of the Indonesian Dental Association in Djakarta, Indonesia, where he was invited to present an update on endodontics. He also met with faculty of the three dental schools in Djakarta to discuss dental education in the US, specifically the interrelationship with the American Dental Association and the American Association of Dental Schools. Dr. Bakland also had the opportunity to describe the dental education at LLU. According to school administrators at University of Indonesia, he was the first dental professor from the US to speak there in recent memory.

• **Eugene Sugita, DDS,** assistant professor of endodontics, took first place at the annual session of the American Association of Endodontics in New Orleans during May for his research paper "Factors influencing the prognosis of endodontic therapy."

• **Stanton Appleton, DDS,** associate professor of oral diagnosis / radiology and pathology, was one of eight to successfully pass the examination of the American Board of Oral Medicine in May. Dr. Appleton received the certificate and masters in oral medicine in 1984. In that year only seven doctors completed an oral medicine certificate program in the US, and he was the only one to achieve a simultaneous masters degree in the same field. This is the first time an LLUSD graduate has achieved this degree of accomplishment in this field.

• Under the direction of **Michael Fillman, DDS,** assistant professor, the orthodontic faculty sponsored a booth at the American Association of Orthodontists convention in Anaheim during May. The booth featured the orthodontic department.

• **Jacob Lee, DDS,** assistant professor of pediatric dentistry, **John Peterson, DDS,** professor and chairman of pediatric dentistry, **Wil Nation, DDS,** assistant professor of pediatric dentistry, and **William Love, DDS,** assistant professor of pediatric dentistry, attended the Third Annual Public Relations Competition sponsored by the American Academy of Pediatric Dentistry held in Orlando, Florida, during May.

Additionally, the pediatric dentistry department was chosen as one of five finalists to present a table clinic on the special events conducted by LLUSD in conjunction with the National Children's Dental Health Month last February. Dr. Lee, who was also the chairman for the events planned at the School, presented the table clinic.

• **Lawrence D. Longo, MD,** professor of physiology / gynecology and obstetrics, School of Medicine, has been awarded $56,336 from National Institute of Child Health and Human Development for "Postdoctoral Training in Perinatal Biology." This program has been funded since 1980.

• **David A. Hessinger, PhD,** associate professor of physiology and pharmacology, has been awarded $10,000 in supplemental funding from National Science Foundation for his research entitled "Chemosensory Control of Cnida Discharge."

• **Edwin H. Krick, MD,** dean, School of Public Health, has received $55,799 from Division of Associated and Dental Health Professions for "Public Health Traineeships." He also received $223,191 from Division of Disadvantaged Assistance for Public Health "Capitation Grant Program."

• **Edwin A. Karlow, PhD,** professor of physics, College of Arts and Sciences, has received $12,719 from the National Science Foundation for a project entitled "Nuclear Instrumentation and Measurement for General Physics Labs."

• **John E. Crowder, MD,** associate professor of psychiatry and family medicine, SM, co-authored an abstract presented at the National Institute of Mental Health (NIMH), Division of Clinical Research, New Clinical Drug Evaluation Unit Program at Key Biscayne, Florida, on May 31. The abstract was entitled "A Placebo- and Imipramine-Controlled Study of Paroxetine." Senior author was Jay B. Cohn, MD, PhD, JD, clinical professor of psychiatry and biobehavioral science at UCLA. Other co-authors included Charles Wilcox, PhD, and Patrick Ryan, MD, from the Psychopharmacology Research Institute, Long Beach.

• **William Jarvis, PhD,** professor of preventive medicine, SM, attended a June 7 meeting of the American Cancer Society's National Committee on Unproven Methods of Cancer Management in Atlanta, Georgia. Dr. Jarvis is a liason member of the committee representing the National Council Against Health Fraud.

• **Paul W. Kittle,** director of the LLUMC medical library and information center, recently published the article "Effects on media materials of storage in proximity to a magnetic resonance imaging scanner" in the *Bulletin of the Medical Librarians Association*. His article detailed the issue at LLUMC, reviewing the Medical Center's testing procedures with videocassettes, video equipment, audiocassettes, and audio equipment.

The professors in the College of Arts and Sciences history and political science department have been actively involved in research during the past year. Following is a summary of the current research and publications:

• **Delmer G. Ross, PhD,** professor and chairman, (specialist in transportation history): current research — a history of railroad construction and operation in Nicaragua, a history of and guide to the Bradshaw Trail, a history of the Ludlow & Southern Railway, the Union Pacific Railroad in the east Mojave Desert, the Atchison, Topeka & Santa Fe Railway in the east Mojave Desert, Ghost railroads of the Mojave River Valley, and Mathilde "Ma" Preston: From France to the Mojave by way of Australia. His recent publications: "Borax Smith and the Tonopah & Tidewater Railroad," in Dennis G. Casebier's *Guide to the East Mojave Heritage Trail: Ivanpah to Rocky Ridge,* and "Left-wing look lends insight into Sandinista Revolution," a review of *The Sandinista Revolution: National Liberation and Social Transformation in Central America,* by Carlos M. Vilas, in *The Times of the Americas.*

• **Ronald D. Graybill, PhD,** associate professor, is involved in the following research: development of guidelines for a scholarly edition of the papers of Ellen G. White, and Franklin D. Roosevelt's appointment of a US representative to the Vatican in 1940 and Ronald Reagan's appointment of a US ambassador to the Vatican in 1983: a comparison of public reaction. Recent publications: "The Millerite-Abolitionist Connection," in R. Numbers and J. Butler, eds., *The Disappointed; "Elder Hottel Goes to General Conference," in Ministry;* "Why Do We Need Adventist History?" in *Journal of Adventist Education;* a review of *Adventism in America* in *Church History;* "Health Reform and Adventists in the Nineteenth Century," in *Ministry;* and "Proofreading and Collating by Computer," in *Documentary Editing.*

• **Frederick G. Hoyt, PhD,** professor, is involved in the following research: an attitudinal study of US military personnel in the Philippines, May 1898 to February 1899; Portland, Maine, 1827-46: An historical reconstruction of the environment in which Ellen Gould Harmon matured; a history of the Millerite movement in Maine, 1839-1855; the Nat Turner slave revolt in Virginia in 1831: the participation of black women; obituary notices of William Miller, 1849-50; Josephine Braken and the Philippine revolt against Spain, 1896-99; the trial of Elder Israel Dammon, Millerite preacher, in 1845, and Matthew Butcher, Cunard captain; and the escape of the CSS Alabama from Liverpool, England, in 1862. Recent publications: "Ellen White's Hometown: Portland, Maine, 1827-1846," in *The World and Ellen White;* "We Lifted Up Our Voices Like a Trumpet: Millerites in Portland, Maine," and "The Trial of Elder I. Dammon Reported for the Piscataquis Farmer," in *Spectrum.*

• **Rennie B. Schoepflin,** assistant professor, is involved in the following research projects: Christian Science, Seventh-day Adventism, and scientific medicine in America; charismatic women and health: Mary Baker Eddy, Ellen G. White, and Aimee Semple McPherson; the American Medical Association accredits a new medical school: the College of Medical Evangelists, 1910-1922; and Hollywood and health: how America's motion picture industry influences public attitudes. Recent publications: "Health and Health Care," in *The World of Ellen G. White,* "Four Historians Discuss the Trial of Israel Dammon," in *Spectrum,* and "Christian Science Healing in America," in *Other Healers: Unorthodox Medicine in America.*

• The University Research Committee announces awards of LLU seed money to the following investigators, based on 27 competitive proposals received in response to the committee's May 1, 1989, request for proposals: **Roland C. Aloia, PhD,** associate professor of anesthesiology and biochemistry, School of Medicine, "The Effect of Lipophilic Drugs on the HIV Envelope;" **W. Lawrence Beeson, MS-PH,** assistant professor of epidemiology, School of Public Health, "Stroke Predictors in California Adventists: A Cohort Study;" **H. Paul Buchheim, PhD,** professor of biology, College of Arts and Sciences, "Modern Fresh Water Algal Stromatolites from the Southern California Desert;" **Charles A. Ducsay, PhD,** assistant professor of physiology, School of Medicine, "Circadian Mechanisms Controlling Uterine Activity and Parturition;" **Richard D. Finkelman, DDS, PhD,** assistant professor of periodontics, School of Dentistry, "Development of a Human Osteoclast-like Transformed Cell Line;" **Kelvin A. W. Hill, PhD,** assistant professor of biochemistry, School of Medicine, "Ananylt-RNA Synthetase: Structure / Function Relationships;" **Patricia K. Johnston, DrPH,** associate professor of nutrition, School of Public Health, "The Effect of Low and Normal Calcium Intake on Biochemical Indices of Bone Turnover;" **Timothy T. K. Jung, MD, PhD,** associate professor of surgery, School of

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Six LLU faculty members receive Zapara Awards

Six Loma Linda University faculty members were named recipients of the annual Thomas and Violet Zapara Distinguished Undergraduate Teaching Awards, according to Norman J. Woods, PhD, president of the University.

La Sierra campus faculty members who received the $1,000 Zapara Award included Walter S. Hamerslough, EdD, professor of health and physical education; Richard T. Rice, PhD, professor of theology; and Leonard R. Brand, PhD, professor of biology.

Loma Linda campus recipients included Bonnie L. Meyer, assistant professor of nursing; Karen A. Simpson, assistant professor of dental hygiene; and Karen M. Pendleton, instructor in occupational therapy.

Thirty-six $1,000 awards are presented annually (through 1992) to three outstanding teachers on each North American Division of Seventh-day Adventists college campus and a national award of $3,000 will be presented to the most outstanding teacher in each of three areas — the sciences, humanities, and professional disciplines.

The Zapara Awards were established in 1988 as a result of the generous gift given by Thomas and Violet Zapara.

(Clockwise from top left). Edwin Zackrison, PhD, associate professor of theology and ministry, presents the Zapara Awards to La Sierra campus faculty members Walter S. Hamerslough, EdD; Richard T. Rice, PhD; and Leonard R. Brand. Dean of the School of Allied Health Professions Joyce Hopp, PhD, presents the Zapara Award to Karen M. Pendleton, instructor in occupational therapy. Not pictured are recipients Bonnie L. Meyer and Karen A. Simpson.

LLUMC formulates mission statement...

Continued from page 2

trends in physician satisfaction.

IV. *General Operations.* Goal: Become a cost-effective provider of quality service in each department.

Supporting action: (1) Salary expense per adjusted patient-day will not exceed $460.92; (2) Supply expense per adjusted patient-day will not exceed $156.21; (3) Finalize productivity standards for each department; (4) Establish an effective position-control system; (5) Provide physicians with utilization data; (6) Educate physicians regarding cost of supplies; (7) Develop institution-wide, flex-staffing program; (8) Evaluate management layers within departments and adjust where appropriate.

V. *Management.* Goal: Achieve desired results in a timely manner while being responsive to the needs of patients, medical staff, and employees.

Supporting action: (1) Upgrade existing management practice by (a) initiating management-development programs; (b) developing and implementing a management-incentive plan; (c) developing criteria-based job descriptions; (2) Develop and implement employee-recognition plan; (3) Develop and implement physician-recognition plan; (4) Investigate merits of cafeteria / flexible-benefit program; (5) Reduce employee-turnover rate to 20/ (excluding interns and residents); (6) Effectively communicate Medical Center objectives to assure employee awareness.

VI. *Community Relations.* Goal: Determine and evaluate overall community impressions of LLUMC and build consensus and unity.

Supporting action: (1) Develop questionnaires to determine our image in identified communities; (2) Promote involvement of managers and staff in community programs; (3) Improve communication on Loma Linda planning through Chamber of Commerce, Rotary, etc.

VII. *Planning and Development.* Goal: Continue to develop strategies and plans that build on LLUMC's current position and maximize its opportunity to succeed in a competitive health-care market.

Supporting action: (1) Continue development of facilities for Cancer Center's opening in spring of 1990; (2) Continue development of programs / facilities for a pediatric hospital; (3) Develop and open a new Christian-centered psychiatric facility; (4) Continue development of the International Heart Institute; (5) Develop facilities / programs for a rehabilitation and orthopaedics program.

Faculty Notes...

Continued from page 8

Medicine, "Effect of Nonsteroidal Anti-inflammatory Drugs, Prostaglandins, and Leukotrienes on the Cochlear Blood Flow;" **Subburaman Mohan, PhD,** associate research professor of medicine, biochemistry, and physiology, School of Medicine, "Effect of GM-CSF on Skeletal Metabolism;" **Donna Dee Strong, PhD,** research assistant professor of medicine and biochemistry, School of Medicine, "Mechanism of 1,25 $(OH)_2D_3$ Induced Human Bone Cell Differentiation."

Nine individuals honored at LLU commencements

Loma Linda University honored nine individuals during the various conferring of degrees ceremonies held in late May and early June, according to Norman J. Woods, PhD, president of the University.

Among those honored were Merle Collins, University councilor; G. Gordon Hadley, MD, director, health and temperance department, General Conference of Seventh-day Adventists; A. Graham Maxwell, PhD, emeritus professor of New Testament, School of Religion; Trygve Opsahl, MD, a 1954 graduate of the School of Medicine; Ronald E. Buell, DDS, emeritus professor of endodontics, School of Dentistry; Lois E. McKee, professor of office management, College of Arts and Sciences; Milton J. Murray, director of philanthropic service for institutions, General Conference of Seventh-day Adventists; and Thomas M. and Violet J. Zapara, owners of Life Support Products, Inc.

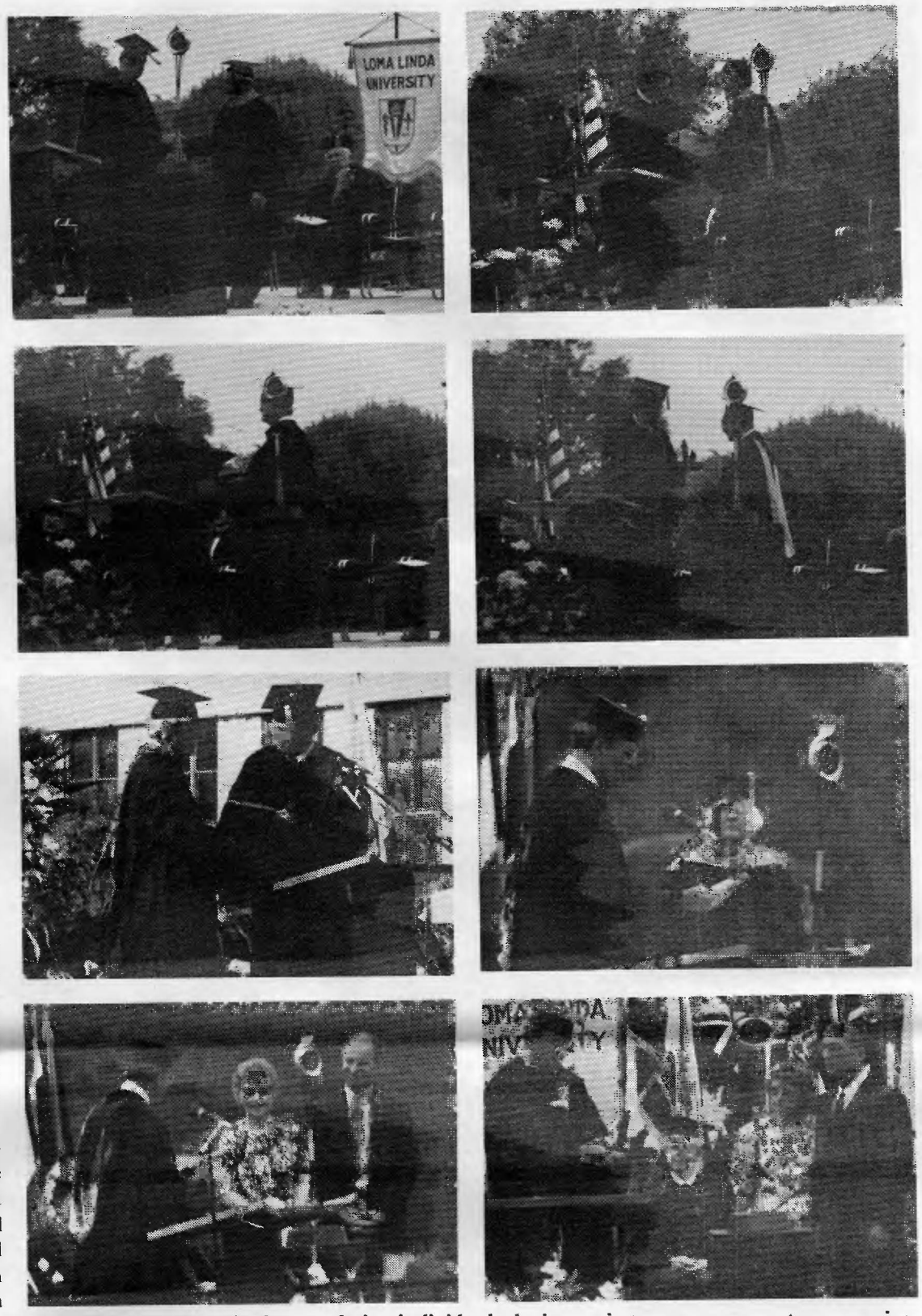
Born in Alfred, New York, and raised in Battle Creek, Michigan, Mr. Collins moved to California in 1912 to farm in the Coachella Valley. Mr. Collins is well-known for his convalescent hospital and nursing homes he built and operated in California until his retirement in 1971. In 1982, Mr. Collins was invited to became a member of the University Councilors, a group of business and professional persons in North America who advise the University administration on issues and special endeavors. Mr. Collins has financially supported several projects at the University because of his interest in students. His latest gift was to the School of Medicine Scholarship Fund. He was presented the University's "Distinguished Humanitarian Award."

A 1944 graduate of the School of Medicine, Dr. Hadley joined the University faculty in 1949 as an instructor in pathology. In 1955, Dr. Hadley and his family began their first of several tours as missionaries to India and Afghanistan where he taught pathology. He returned to Loma Linda University on a full-time basis in 1975 as associate dean for student affairs in the School of Medicine. Two years later, he was appointed dean of the school, a position in which he served until 1986, when he accepted his present appointment in Washington, D.C. Dr. Hadley was presented with the "Distinguished University Service Award."

Dr. Maxwell joined the Loma Linda University faculty in 1961 as professor of New Testament and director of the division of religion following a teaching term at Pacific Union College. He retired from full-time duties in 1988 after nearly three decades of distinguished contributions to the University through his scholarship, teaching and service. Dr. Maxwell received the "Distinguished University Service Award" at the conferring of degrees ceremonies for the School of Medicine.

Following his 1954 graduation from Loma Linda University School of Medicine, Dr. Opsahl served in the United States Navy Medical Corps, completed a surgery residency in Indianapolis, and served as a missionary to Trinidad. When he returned to the United States he established a successful surgery practice which he has maintained for 35 years. Because of his interest and support of the School of Medicine student scholarship endowment funds, Dr. Opsahl was presented a miniature sculpture of the Good Samaritan — the original of which stands on the Loma Linda campus.

A 1932 graduate of the University of Oregon School of Dentistry, Dr. Buell joined the faculty of the University's School of Dentistry in 1956 while continuing a private practice in Santa Ana. In 1959, Dr. Buell became the first endodontic specialist in Orange County. Dr. Buell was made a diplomate of the Board of the American Association of Endodontics, adding distinction to the University's graduate endodontics program which he subsequently directed. Dr. Buell was presented the "Distinguished University Service Award" during School of Dentistry conferring of degree ceremonies.



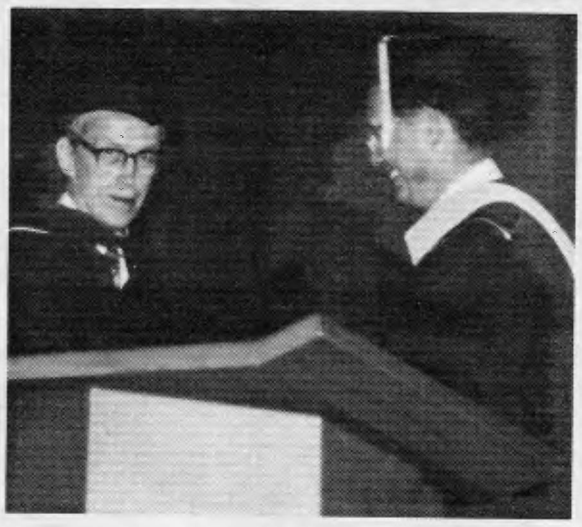
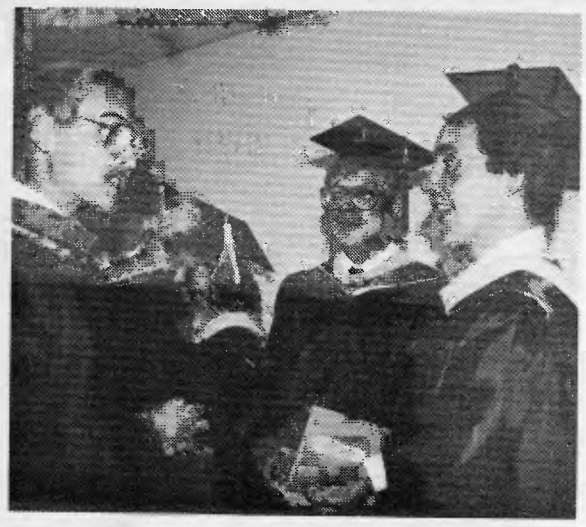
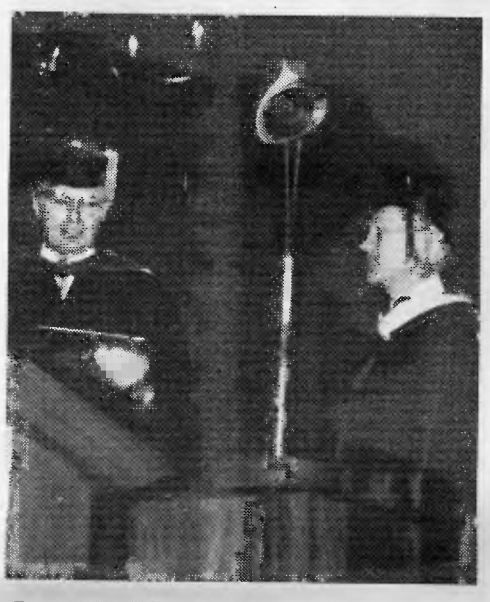
Loma Linda University honored nine individuals during spring commencement ceremonies. Receiving the awards from LLU president Norman J. Woods, PhD, are (clockwise from top left) Merle Collins; G. Gordon Hadley, MD; Trygve Opsahl, MD; Lois McKee, PhD; Thomas and Violet Zapara; Mrs. Milton Murray and son Keith (accepting for Milton Murray); Ronald E. Buell, DDS; and A. Graham Maxwell, PhD.

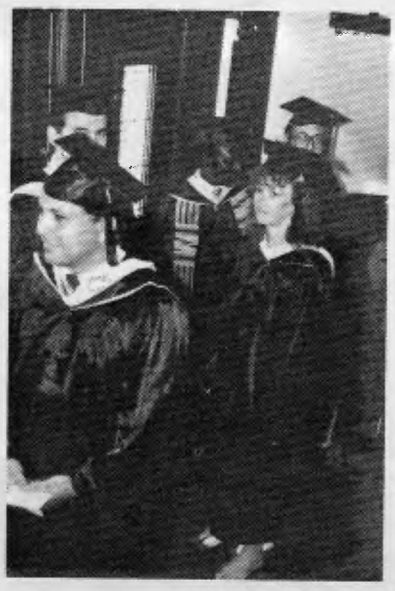
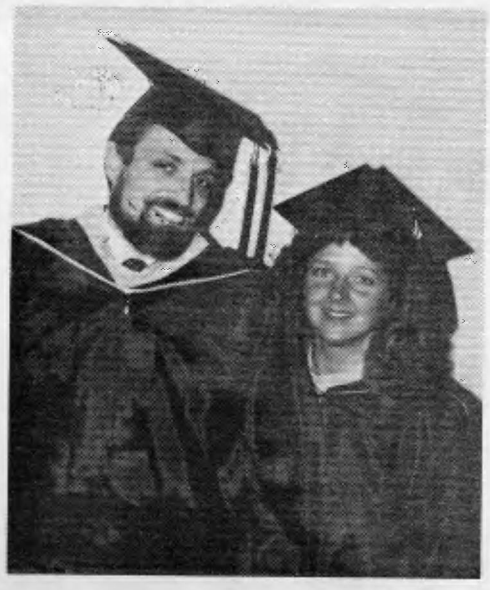
Soon after her 1949 graduation from La Sierra College, Dr. McKee joined the college faculty as dean of women and instructor in secretarial science. From 1958 to 1963 and 1963 to 1967, Dr. McKee taught business at Hawaiian Mission Academy, and secretarial science at Union College in Nebraska, respectively. She rejoined the La Sierra faculty in 1967 as assistant professor of secretarial administration. In 1974, Dr. McKee was named professor of secretarial and business education. During her time at La Sierra, she has served as chairman of the department of office management and coordinated many seminars and workshops. Her retirement in 1988 marked the end of four decades of teaching and administration. She was presented the "Distinguished University Service Award" during the La Sierra campus commencement services.

An alumnus of Loma Linda University, Mr. Murray has established several public relations and development programs in institutions around the United States and has served as consultant to more than 50 institutions in 12 countries. During his professional career, Mr. Murray has directed programs and influenced institutions in acquiring approximately $60 million. The title "University Alumnus" was conferred on Mr. Murray during La Sierra campus conferring of degree ceremonies.

Mr. and Mrs. Zapara are alumni of La Sierra College. Mr. Zapara began his professional career in sales for a pharmaceutical company and Mrs. Zapara taught in the Adventist school system for five years after graduation. In 1952, they formed their own company, Zee Medical Products which they kept for 30 years. Upon selling their business, they retained a small emergency medical portion which they have built into the worldwide concern known as Life Support Products, Inc. Mr. Zapara is involved in numerous activities including serving on the University's Board of Trustees and being a member of the University Councilors. In 1988, as a result of a generous gift made by the Zaparas, the Distinguished Undergraduate Teaching Awards were established by the General Conference of Seventh-day Adventists. A special University presentation was made to Mr. and Mrs. Zapara at the combined conferring of degrees ceremonies for the College of Arts and Sciences, School of Education, and the School of Business and Management.

School of Public Health Commencement Ceremonies

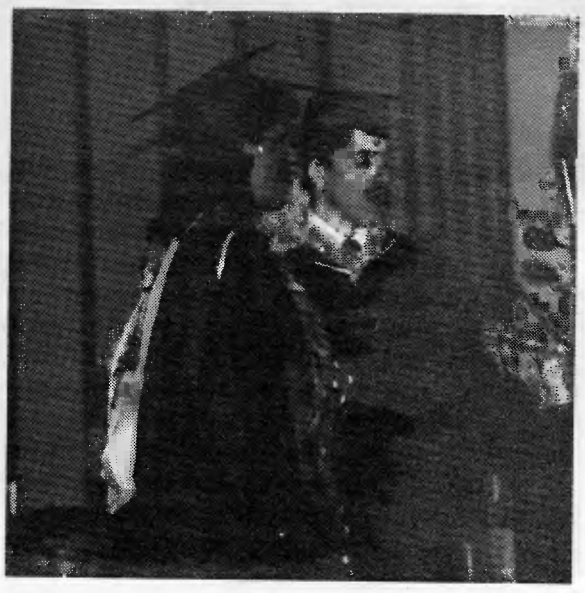
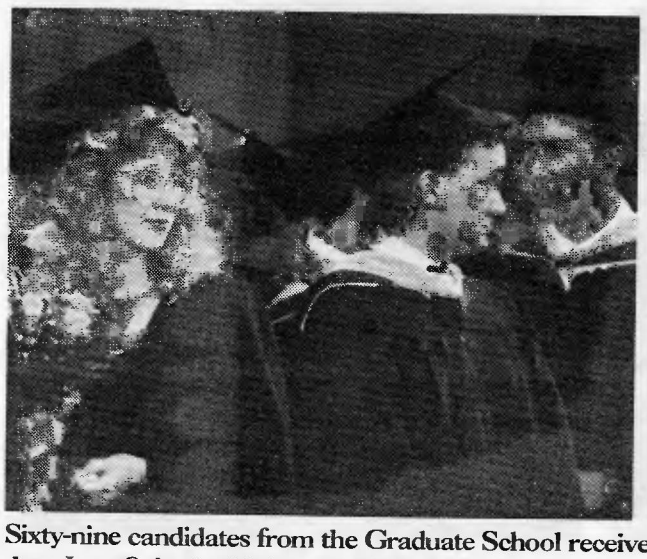
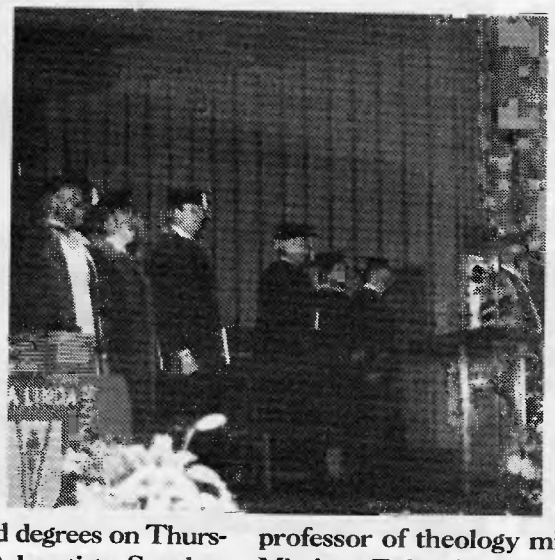
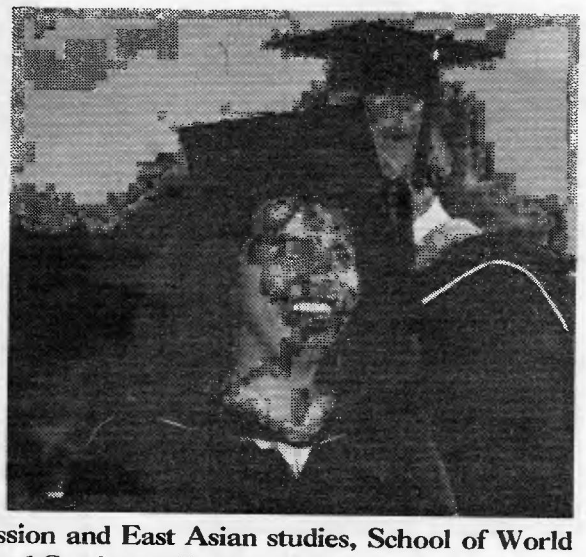





Carrol S. Small, MD, professor of pathology in the School of Medicine, spoke to 107 graduates of the School of Public Health at ceremonies held Friday, June 9, in the Campus Hill Church of Seventh-day Adventists. His topic was "That Good Part."

Graduate School Commencement Ceremonies

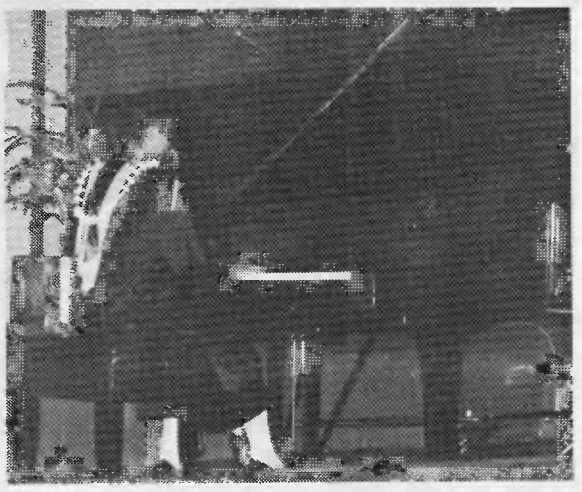


Sixty-nine candidates from the Graduate School received degrees on Thursday, June 8, in the University Church of Seventh-day Adventists. Speaker for the event was Arthur Glasser, DD (Hon.), dean emeritus and senior professor of theology mission and East Asian studies, School of World Mission, Fuller Theological Seminary, Pasadena.

School of Allied Health Professions Commencement Ceremonies







Douglas F. Welebir, a San Bernardino attorney and instructor of health information administration, spoke to 117 candidates from the School of Allied Health Professions in the University Church on June 11. His topic was "Why Here and Not There?"

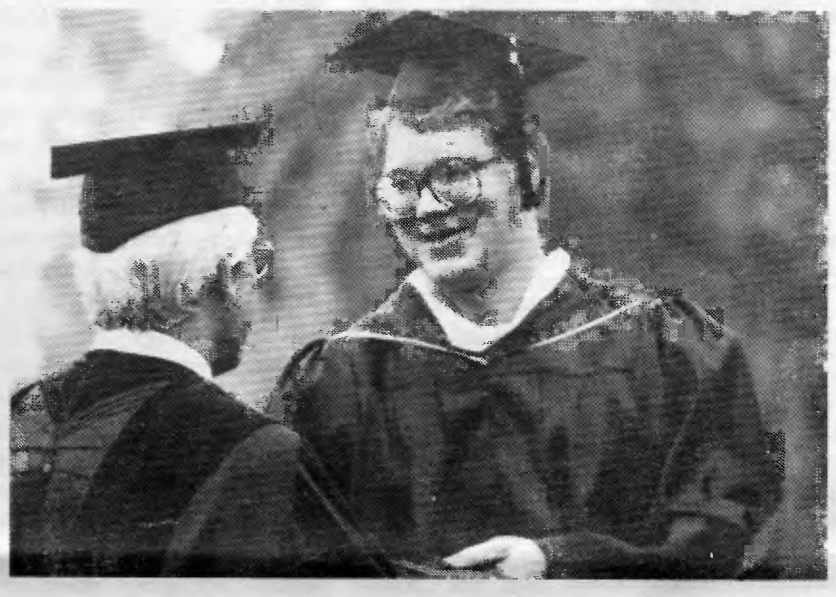
School of Nursing Commencement Ceremonies






Speaking to 61 candidates for degrees in the School of Nursing at the University Church ceremonies on Sunday, June 9, was Kay O'Connor, associate professor of nursing in the School of Nursing. Her topic was "Heroes for the Test."

Commencement ceremonies for: College of Arts and Sciences School of Business & Management School of Education



On Sunday morning, June 11, Alice S. Petrossian, director of the intercultural education department for the Glendale Unified School District, spoke to the degree candidates from the College of Arts and Sciences, School of Business and Management, and School of Education on the University's La Sierra campus mall. Her topic was "One Makes a Difference." During the ceremonies, 154 candidates received degrees from the College of Arts and Sciences; 51 from the School of Business and Management; and 60 from the School of Education.

Public health students impact community through lab projects

AIDS education, smoking cessation, low back pain, and heart disease risk are just a sampling of the topics 37 School of Public Health students picked for their community projects this school year.

In the class "Symposium in Health Education Practice," taught in the spring quarter of each year, health promotion and education majors apply the program planning theories they have learned during fall and winter quarters. Juliette van Putten, MPH, MS, assistant professor of health promotion and education, teaches the course, aided by Cami Dale, Mark Fulop, Darla Lee, and Dyann Matson. Other faculty who assisted in this course include department chair Christine Neish, PhD, Ruth White, DrPH, professor of health promotion and education, Prudence Pollard, MPH, assistant professor of nutrition, and Michelle Abu-Assal, MS, assistant professor of nutrition.

The students presented oral and written summaries of their projects at a meeting in Randall Visitors Center, June 5, 1989. To determine which programs would be most beneficial to the selected communities, the students conducted a needs of assessment survey. With this information, they designed programs to meet these needs, and after the programs were over, they conducted evaluations to determine how effective the interventions had been.

The following is a summary of each project.

Caring for Yourself, the Caregiver

Michael Kuan, Chiu Huang, Karen Nilsen, Jacob Pai, and Patricia Reid participated in this project. The students offered two training sessions—one in Hemet and another through the Riverside County Office on Aging—for caregivers of persons with Alzheimer's disease. Their purpose was to provide caregivers with strategies and resources for coping with the stress of caring for Alzheimer's patients.

The program evaluations indicated a high level of interest by the participants, and a corresponding high level of comprehension of the material presented. In fact, the students were requested to present this program again to caregivers in Sun City. There appears to be a continuing need for programs of this type. This project was co-sponsored by Riverside County Department of Health.

Riverside Minority Needs Assessment Project

Jacques Chase, Ruth Francis, Chen Lin, Walter Maier, and Yolanda Huerta Smith participated in this project. The purpose was to increase the awareness of Riverside health educators regarding the problems faced by the two minority communities of Eastside and Casa Blanca.

The community respondents perceived problems including drugs, alcohol, and gang violence, while tobacco use, alcohol consumption, and a high rate of exercise were not thought to be problems. This information conflicts with demographic information collected from other comparable minority communities, and was helpful to educators in the Riverside County Health Department.

Peers Urging Freedom from Smoking (PUFFS): A Smoking Cessation Training Program for Adolescents

Maryanna Gabriel initiated this project. Her goal was to train peer facilitators and faculty advisors to lead out in the PUFFS program in area high schools. A peer-facilitated smoking cessation program for adolescents, PUFFS was developed by local health educators from the American Cancer Society, the American Heart Association, and the San Bernardino Public Health Department.

Ms. Gabriel worked with four teachers and 25 non-smoking students (including ex-smokers) in the training program. All participants successfully completed the program, and they will be contacted in six and 12 months to determine if they have conducted a PUFFS program at their schools.

Workshop on AIDS and High Risk Behaviors in Intravenous Heroin Addicts

This project participant, Kenrick C. Bourne, proposed a pilot project that would include an education component on the spread of AIDS as part of Inland Health Systems methadone detoxification and maintenance program for heroin addicts. IV drug users constitute the second leading risk category for the transmission of the AIDS virus in the U.S.

The goal was to reduce the spread of AIDS in this target group of IV heroin users. Mr. Bourne conducted a 45 minute workshop, prefaced with a short history of the AIDS epidemic. He explained how certain behaviors contribute to the spread of AIDS, and suggested changes to reduce this spread. A five-minute question and answer period completed the presentation.

Post-workshop test scores were high — 63 percent of the participants scored 100 percent, and everyone scored at least 80 percent or above. Noting the high test scores and positive feedback, Inland Health Systems has requested that this intervention be repeated periodically at their agency.

Low Back Pain Prevention Pilot Program for Riverside County Employees

Yoshimitsu Mineyama participated in this project. He devised a 30-minute pilot program for low back pain prevention, condensed from a longer program. It was used as part of Riverside County's employee wellness program.

In this half-hour program, a video on back pain was shown, and a demonstration of correct body mechanics for low back pain prevention was given. After the program, participants satisfactorily completed a test of the material just covered. A more in-depth program on low back pain prevention is now being planned for county employees.

Nutritional Awareness Program for Elementary School Students

Monica Allen and Deborah Stout participated in this project, which consisted of a two-part intervention.

The first aspect involved nutrition education to elementary school-aged children in the Riverside Unified School District, designed by Ms. Allen and Ms. Stout. The purpose was to increase the knowledge and application of proper nutrition principles among fifth graders at Hyatt and Magnolia Elementary Schools.

The second phase of the intervention consisted of providing additional health information for teachers. The purpose of this was to integrate a nutritional component into the current health curriculum.

A post-program evaluation of the children indicated that 85 percent of them were able to identify nutritionally sound foods.

How's Your Heart: Coronary Risk Appraisal

Project participants included Nancy Bagnato, Thomas Butler, Greg Dubord, Karen Harris, Deborah Hoover, and Christine Sager. This group's intervention consisted of a heart risk appraisal for employees of Valley Systems Division of General Dynamics Corporation in Ontario.

The program included an initial screening (height, weight, blood pressure, body fat composition, total cholesterol) with a computerized health risk analysis. In the second phase, the results of the test were reviewed and a series of health lectures were provided. Thirty-seven employees voluntarily participated.

Nutrition Education Pilot Project

Project participants included Elizabeth Calicchia, Chattakoon Chiachanpong, Nancy Dold, Ann Gustafson, Barbara Hiebert-Crape, Herminia Lee, Robert Lee, Jami Pastrama, Lenea Pollett, Zu Wen Qui, and Diana Retta. In conjunction with the Inland Counties Hypertension Council, this group developed and implemented nutritionally oriented continuing education interventions. The program targeted the Blood Pressure Measurement Specialists who are volunteers involved in the *Take Charge Program*, a hypertension screening program developed by the Hypertension Council.

The goal was to educate these volunteers to give better information on the nutritional aspects of hypertension to those they serve. A continual evaluation of the program's outcome will be conducted by Inland Counties Hypertension Council as the learning plans are implemented.

Prenatal Education for the Pregnant Minor Program, Corona-Norco Unified School District

Takako Ohori developed an intervention program to educate and improve the quality of life of pregnant teens at Buena Vista High School in Corona. The education component was provided by the school nurse, consisting of four sessions held once a week during school hours.

The long term goals of this program include improvement in lifestyle behaviors and positive childbearing experiences, and ultimately, to reduce the incidence of maternal and infant morbidity and mortality among pregnant teens.

District Drug Abuse Intervention Program

Dorothy Reichard, program participant, notes that the prevalence of substance abuse among adolescents in the U.S. is of epidemic proportions and that traditional substance abuse prevention approaches have produced disappointing results.

Ms. Reichard designed and implemented two staff training seminars addressing student substance abuse awareness, referral, and support issues. Forty Corona Junior High School faculty members and the district's eight school nurses were the target group. Her goal was to heighten awareness regarding the extent of the drug problem, how to identify students at risk and possible drug-related behaviors, what community and school resources are available, and identification of the staff's role in the interdisciplinary intervention team. A major goal was realized by the advisory committee when Riverside County Drug Services began a free weekly local adolescent recovery support group as a direct result of lobbying efforts.

Infant Stimulation Program

Jean Kryger participated in this project. She worked with Riverside County public health nurses to raise the quality of life for high risk infants from zero to three months of age by providing the caregiver with knowledge and skills to promote optimal growth and development of the infant.

In this program, the public health nurse demonstrates infant stimulation and discusses its relationship to growth and development with the parents. A card listing different play activities for developmental enrichment is left with the parent to help him or her recall the demonstration.

The parents who participated in this project stated that the program helped them understand the playful activities with their children as fostering growth and development and brought satisfaction to their relationship. One month after the demonstration, all parents surveyed were still continuing to use the techniques.

AIDS Education Curriculum Development for California Alternative Education Program

Project participants included Bonnie Kellogg, Gerd Ludescher, and Abraham Amanios. This group designed a program to increase AIDS knowledge of adolescents attending California Alternative Education Programs by providing an independent study program. These teenagers have certain behaviors that potentially put them at a higher risk for acquiring AIDS than their counterparts attending regular high schools.

The independent workbook, the main component of this intervention, will include a self-assessment section at the end of each major topic area.

Back School

Sharon Anderson participated in this project. In conjunction with Loma Linda University Medical Center's physical therapy department, Ms. Anderson planned a preventive education program. Goals of this intervention include increased individual knowledge in body mechanics and functional awareness of back problems in order to reduce personal risk for back pain. The importance of musculoskeletal strengthening, flexibility and lifestyle would also be learned.

The Back School classes will be taught be physical therapists who regularly treat back pain patients beginning in June, 1989. A pre- and post-intervention evaluation questionnaire has been constructed to evaluate the effectiveness of this program. Ms. Anderson will be one of the two program instructors.

SAHP to initiate respiratory care center at China college

Administrators of the School of Allied Health Professions and Suzhou Medical College in the People's Republic of China signed a preliminary agreement on June 2 to initiate a respiratory care center at the medical college.

Joyce Hopp, PhD, dean; Howard Sanders, chair, respiratory therapy; and Mark Valley, instructor, traveled to Suzhou at the request of the medical college to explore the feasibility of preparing a new kind of respiratory care specialist in the People's Republic. Prior contacts with David Fang, MD, professor of surgery, and Joan Coggin, MD, associate dean for international programs, School of Medicine, led to this request.

"We met with the top administrators for several informational and negotiation sessions," said Dr. Hopp. "Even though most of our conversation was through an interpreter, I felt we had good communication, and a very pleasant time."

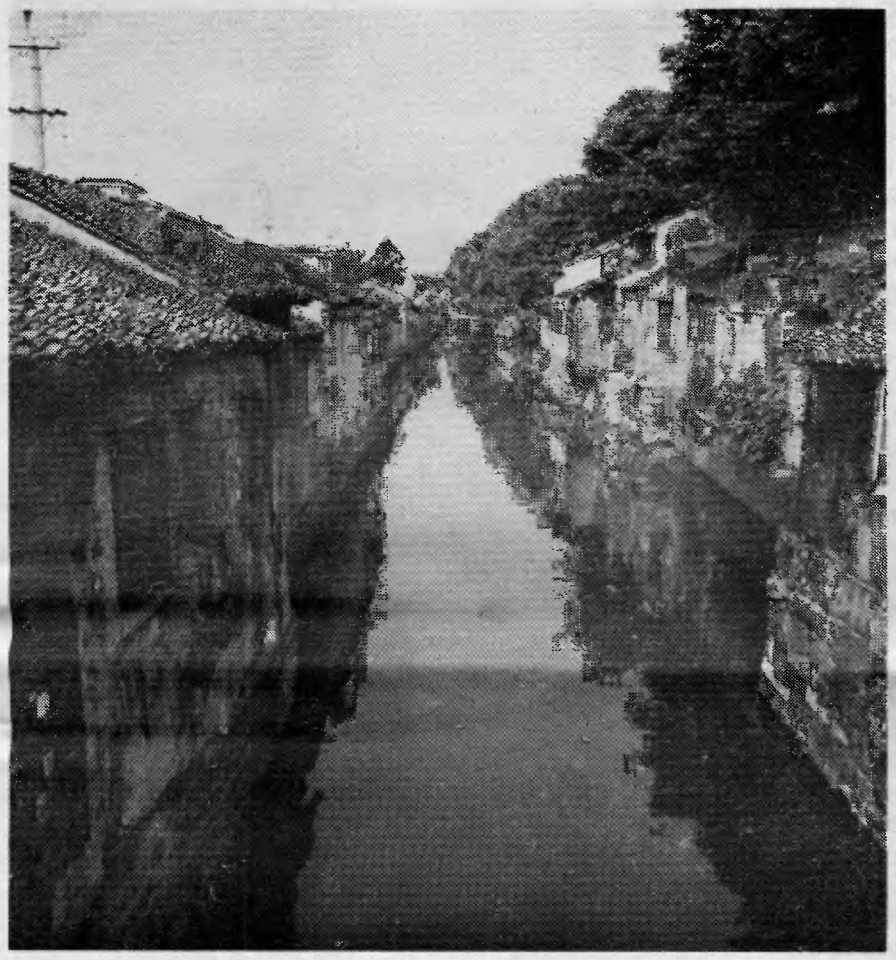
The terms of the agreement will be refined by both parties, looking forward to the final signing in December when the Suzhou medical team expects to be in the United States.

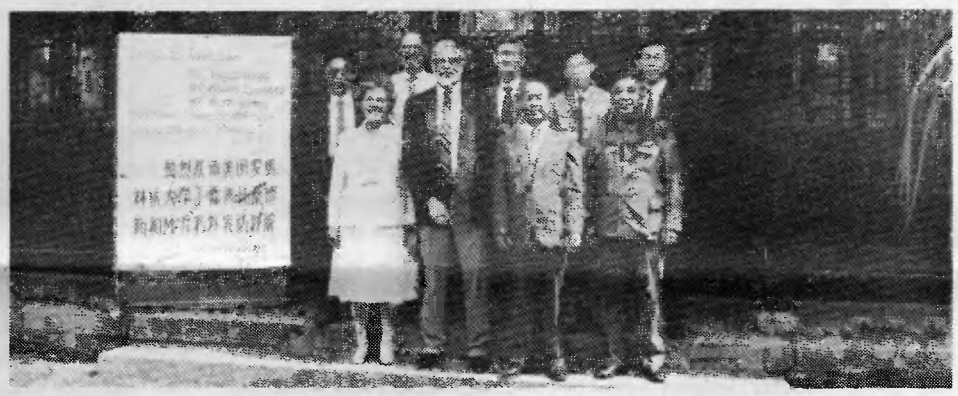
"This will not be an extended campus program, as we have in Saudi Arabia," states Mr. Sanders. "Instead, we will be educating future faculty for the new center, providing the curriculum for the specialist training, and seeking donations of equipment."

The School of Allied Health Professions has pioneered structuring curricula in respiratory therapy for other countries. The Saudi Arabian program, initiated two years ago, has served as a model for both Kasturba [India] and Suzhou Medical School educational endeavors, although each is adapted to the specific needs of the country involved.

"Our China hosts were very gracious, providing tours of the garden city, as Suzhou is called," said Dr. Hopp. "We were impressed with its beauty. And, with the children! They are so cute, perched on bicycles, riding along with their parents. I used up all my film taking pictures of them."

The School of Allied Health Professions team was also scheduled to work with the Beijing Hospital, but were unable to complete their work there due to the difficult situation within that city.





Clockwise from top left: Suzhou is sometimes called the Venice of China; hospital workers demonstrate respiratory care equipment; Dr. Hopp and Mr. Sanders would often work on the agreement in their hotel room, revising and preparing; the medical college administration warmly welcomed the LLU team, Dr. Hopp, Mr. Valley, and Mr. Sanders (2nd, 3rd, and 4th from left); even while sightseeing, discussion of the agreement remained at the forefront; three doctors stand in front of Suzhou Hospital, which is as big as — if not bigger than — the whole Loma Linda University Medical Center complex.

Memorial services held for Dr. Brailsford, inventor and educator

Memorial services were held in the University Church of Seventh-day Adventists on Sabbath, June 17, for J. Douglas Brailsford, PhD, associate professor of medical technology in the School of Allied Health Professions, who died on June 13. Reprinted below is the biographical sketch given by Brian Bull, MD, professor and chairman of the department of pathology in the School of Medicine.

Joseph Douglas Brailsford was born in the London borough of Battersea on February 13, 1912. His mother came from Yorkshire, his father from Lincolnshire. His parents were poor. His father was a laborer and, quite literally, a jack-of-all trades who did building, remodelling, plastering, carpentry — whatever was available so as to keep his family of two boys and a girl in food, clothes, and more importantly — in school.

The senior Brailsfords, uneducated themselves, believed strongly in education for their children. Thus it was that young Douglas, at the age of 7 was enrolled in Sir Walter St. John's Grammar School in Battersea. Here in America we consider an institution to have a long history if it can be traced back to the late 1700s. For institutions such as the school established by Sir Walter that would have been merely yesterday — for Sir Walter was one of the Norman knights who won the field in 1066 at the Battle of Hastings. Being Norman and therefore French, St. John's name was correctly pronounced Sanjeon but by the time Douglas registered there, however, the English schoolboys had modified and contracted it to the almost unrecognizable Sir Walter "Singine" — it sort of rhymed with engine and indeed was coupled with engine in one of the limericks popular with the schoolboys.

Very shortly after he started school, it became apparent that Douglas had a flair for mathematics. His parents, lacking any schooling themselves, were unable to help Douglas with the heavy load of homework that was considered the norm for schoolboys in those days. Thus it was that morning after morning Douglas would return to school with his assignments incomplete because no one at home could help him in the process of solving equations or lay out the way to prove a theorem. He found, however, that when the teacher would write a portion of the proof on the blackboard he could see one or more ways of completing it — ways that were often unorthodox but usually correct and invariably ingenious. This talent for creative mathematics would emerge again and again through his long and varied career as an inventor, teacher, engineer, and research scientist.

Upon completion of his primary schooling, he chose to study engineering. This was much to the distress of his mathematics teachers who felt that he should compete for a University scholarship in the field of higher mathematics. Douglas, with characteristic practicality, demurred. He enrolled in the Battersea Polytechnic School in engineering. He was a natural at the studies that led to his engineering degree, and he graduated with honors.

His first job was in the Marconi Company. These were the years leading up to World War II, and because the Marconi Company was — not surprisingly — in the business of producing radio receivers and transmitters, Douglas was assigned the task of building a radio direction finder for aircraft. As a young and inexperienced engineer he showed considerable promise but had, as yet, no patents to his credit. The company, in an effort to encourage its employees, had declared a bonus of 10 pounds sterling for each patentable invention produced. Ten pounds may not sound like much today, but in the late 1920s it represented roughly 15 percent of Douglas' annual salary.

Although raised an Adventist, his interest in religion had waned through the years of his youth, and he had only recently become active in the local church once more. To support the Investment Program at the Chiswick church, he pledged the ten-pound bonus from his first patentable invention. Within a few months, the church's investment fund was 10 pounds richer. Indeed, so productive did he become that his immediate supervisor at Marconi called him in one day to inquire about the secret of his success!

Inventiveness was Douglas' middle name. During the war he had perfected a radio direction finder that was the standard equipment in most of the British Air Force planes. Towards the close of that conflict, he was assigned to develop a direction finder for the first commercial jet passenger plane — no, not the Boeing 707 — it was the DeHaviland Comet. Most of us here in the USA consider passenger jets and Boeing aircraft to be synonymous, but that was not the case in the beginning. The first commercial jet aircraft was the British-built Comet. Regrettably, despite being British built, it was not — as it turned out — too well put together structurally and had a nasty tendency to break up in mid air due to metal fatigue. That, however, is getting ahead of my story, and in any event, the airframe had nothing to do with Douglas' company. Douglas was assigned the task of building a radio direction finder for this aircraft while it was still on the drawing board. This he did, but then realized that the device could not be calibrated appropriately since the plane did not yet exist and a direction finder, if it is to work, must be compensated for the precise shape of the airplane's metal skin. Not to be thwarted, Douglas and a friend built a large scale model of the Comet from the engineering drawings, sprayed a metallic coating all over the model, and then placed the direction finder inside to determine how it would behave in the full-scale airship. His ingenuity paid off as the instrument worked perfectly when later the Comet finally took to the air.

I earlier mentioned the interest that Douglas took in the local Adventist church. In time Douglas also took an interest in one of the church employees — a Bible worker by the name of Margaret Mary John, known to her friends as Rita. As the months passed, the interest deepened to friendship, and friendship turned to love. Douglas and Rita were married in 1946 and their first child Phillip St. John "Singine" Brailsford was born in 1947. Eighteen months later, Paul Ashley joined the Brailsford family.

In 1948 Newbold College was in need of a teacher for science and mathematics. Despite being very happy at the Marconi Company and though strongly urged to stay by all his coworkers and his superiors, Douglas responded to the request from Newbold and joined the faculty at the college. It was fortunate that he was both adaptable and versatile, for — in typical Adventist college fashion — he was, over the next several years, called upon to teach all sorts of subjects besides the ones for which he had been hired. As he, a mathematician and engineer, responded to the challenge of teaching such courses as health principles, he tried to infuse some scientific rigor into the instruction. One particularly apt illustration he was fond of using was to liken cheese to the halfway point between milk and a doorknob. This was to emphasize to the students that casein, the protein of milk, is partially extracted and concentrated in cheese but when fully purified became a plastic-like material that could be molded into a variety of common household objects.

While teaching at Newbold, Douglas became acquainted with another creative inventor, entrepreneur, and industrialist, James Martin. Mr. Martin (later Sir James) had invented the airplane ejector seat. It was a clever device that literally blasted the pilot free of a doomed plane by means of explosive charges attached to the seat frame. It was credited with saving the lives of over 1,000 pilots during the war, since the seat, once free of the plane, deployed a parachute that lowered the occupant gently to the ground. In his later years when he had become quite wealthy, Sir James used to host large dinners where the invited guests were all men whose lives his invention had saved.

Dr. Brailsford

Douglas had originally gone to see Mr. Martin with several inventions that he thought might be of interest. It was Douglas himself that Mr. Martin found so interesting. Recognizing his talent and the small scope that Newbold College was providing for such genius, Mr. Martin allowed Douglas to have a workshop in his factory and even arranged for him to have a toolmaker assistant. It was to that workshop that Douglas would retire to after having had lunch and a chat with Mr. Martin. Working late into the night Douglas did much of the work required as an external doctoral candidate in engineering at the University of London.

In 1963 Douglas was called by the Sanitarium Health Food Company to Australia. After 18 months he returned briefly to England to defend his doctoral thesis and receive his degree. Then he went back to Australia, but only for a few months, as Spicer College in India needed a science teacher and Douglas, now a full, doctoral-level engineer, was overqualified for the often rough-and-ready technology of a food factory. Unfortunately, Phillip and Paul had to be left behind in Australia to complete their schooling. This separation Rita and Douglas endured for four years while teaching at Spicer, but in 1970 when the boys came to the USA for college, Douglas and Rita joined them here.

Shortly after coming to the States, and while working at Loma Linda Foods, Douglas came to my office one day to enquire about a teaching position at LLU. I was fascinated by this slender, soft-spoken gentleman who was literally brimming over with creativity. That meeting began a friendship and a collaboration that has lasted over 17 years.

Although we worked together on many projects, the one that most entranced us both was the shape of the red cell. As a child I had seen a movie film put out by the Moody Bible Institute on the marvelous design of the red cell. The film explained how the discoid shape of the red cell was designed by the Almighty because it aided the diffusion of oxygen from the red cell into the tissues. That it was designed by the Almighty, I had no doubt, but it seemed to me highly unlikely

Please turn to page 18

How science discovered God

This article was reprinted from Ministry, *May 1989, "Science and Religion" section, written by Daniel Lazich. The author, an aerospace engineer, has studied the relation of physics to theology for many years. He is the principal engineer of the kinetic energy weapons project of the United States Strategic Defense Command.*

It is no secret that physicists today have been brought, by the implications of their own theories, face-to-face with God — whether or not they choose to believe in Him. The eminent Cambridge mathematics professor Stephen Hawking, in his best-selling book *A Brief History of Time*, continually addresses questions about Creation and the role of a Creator. Hawking takes great pains to explain how and why questions about God and His importance to the very existence of the universe have recently become important to physicists. The results of advanced research compel them to ask questions that were left in the province of religion until now. Questions such as: Is the universe the product of a fortuitous sequence of events? Or is it the product of a great design? Why is the universe the way we observe it? Who selected the initial conditions that produced such a precise and unique universe?

This new interest in the design behind the universe is not a result of philosophical musings or vague speculations, but of rigorous mathematical calculations based on the laws of particle physics, quantum mechanics, and the general theory of relativity

The most advanced theories now being explored and tested demand answers to these questions about the reason for our existence. Theoretical physicists are now engaged in a serious quest for a complete description of reality — the observed universe and the meaning of it all. It is hoped that such a description of reality can be found and made an integral part of the quantum theory of the universe. In the search for this description, scientists who believe in God and those who do not are arriving at the same conclusions regarding the creation of the universe and its continuing existence. A growing number of serious researchers are defying recent scientific tradition and admitting that it is at least possible that the universe has a Creator. Some are going even further and declaring that God as Creator may be the only answer to the ultimate questions about existence.

What is causing this revolutionary change in scientific thought? For several decades classical cosmology, a theory of the universe based on the general theory of relativity alone, was the principal explanation of the observed characteristics of our universe. According to this theory, the big bang model was an adequate explanation of how the universe began. Cosmologists thought this model provided a nearly complete understanding of the universe. But the big bang model placed the very beginning of the universe beyond the scope of science. Questions regarding the nature of the universe and its condition prior to one second after its creation remained unanswered. Cosmologists believed that the early universe was a result of special initial conditions that they were content to leave outside the scope of their theories. But recent developments in physics have brought them to realize that if cosmology is to truly understand the universe, these questions must be faced.

The well-designed universe

The new cosmology is based on the quantum theory of the universe, a theory that has developed from efforts to merge

"Most scientists refused to even consider the need of a final observer for fear of being ridiculed as religious nuts."

the implications of quantum mechanics with the general theory of relativity. The goal of the new cosmology is to develop a precise mathematical definition of the properties of our universe, from subatomic particles to the largest structures. In the quest for this definition, scientists determined that unique initial conditions were necessary to bring about the existence of intelligent life in our universe. In addition the calculations indicated that these conditions could not have been a product of chance. So the evidence led them to look for an intelligent plan and planner behind the initial conditions.

Thus in their search for a logical explanation for our existence, scientists were forced to dust off the centuries-old "by design" argument and begin a serious investigation of the possibility that a Creator selected the constants that govern the behavior of our universe.

The universe by design argument, as it relates to study of the properties of our universe, compelled scientists to give new consideration to the anthropic cosmological principles. These principles become important to physics because quantum mechanics make it clear that nothing can really exist unless there is an intelligent observer whose observation makes it real. In other words, scientists are discovering that the existence of the universe is inseparably tied to the existence of intelligent beings in it. (For a further discussion of the necessity of an observer, see "How Science Discovered Creation," *Ministry*, November 1985, January 1986.)

The anthropic cosmological principles

Since quantum mechanics requires obesrvers, the anthropic principles are needed to help find a link between the properties of the universe and the intelligent observers.

There are three anthropic cosmological principles: the weak anthropic principle, the strong anthropic principle, and the final anthropic principle. The weak anthropic principle states that certain properties of the universe are necessary if it is to contain carbon-based life like us, and that our observation of these properties is restricted by our very special nature. The strong anthropic principle states that the universe must have dimensions and properties that allow life to develop, because intelligent observers are necessary for the universe to exist. The final anthropic principle holds that intelligent information processing must come into existence in the universe, and that once it comes into existence it will never die out.[1]

A little background may help to explain the basis of these conclusions about the necessity of an observer.

Understanding the universe

The basic constituents of matter, such as electrons, possess a dual nature. They can be observed either as a point particle or as a wave, but not as both at the same time. Furthermore, all the matter and energy in the universe is made up of "packets" of energy called quanta. Radiant energy cannot be emitted in quantities smaller than a quantum, and must be emitted in multiples of a quantum.

In other words, the subatomic world is not a uniform soup, but is somewhat lumpy because everything comes packaged in quantum-sized lumps. Quantum mechanics was developed to help explain or account for this lumpiness.

But in many ways quantum mechanics only made the real nature of the subatomic world more confusing. An electron, for example, possesses properties of spin, momentum, position, and charge. But only one of these properties can be observed in a given time and laboratory setup. If an experimenter wants to observe another property of an electron, he must do so in a separate attempt at another time, employing a different electron in a different apparatus. Furthermore, the experimenter must decide, prior to the experiment, which property of an electron he wants

"Theologians need no longer apologize for making a leap of faith — scientists are coming to see the necessity of this leap."

to observe, and must specify exactly how he plans to observe it. An experimenter is required to decide in advance not only which property he wants to observe, but also what an electron is to be — a point particle or a wave. In addition the experimenter can, by what he decides now, in some sense influence how an electron shall have behaved in the past.[2]

When these puzzling facts about the nature of atomic matter were revealed in laboratory experiments, the revelation stimulated considerable discussion about what particles really are and what all this means about the reality of our universe.

To clarify the nature of the atomic world, Niels Bohr, director of the Institute for Theoretical Physics in Copenhagen, proposed what is believed to be a consistent interpretation of quantum mechanics. This is commonly referred to as the Copenhagen interpretation. According to this interpretation, the experimenter in his capacity as an intelligent observer is an essential and irreducible feature of physics.[3] In addition the interpretation states that before an experimenter can make sense of what an electron is doing, he must specify the total experimental context. It appears that the quantum reality of the microworld is inextricably entangled with the organization of the larger world. The part has no meaning except in relation to the whole.[4]

But an experimenter in the laboratory can, by his observation, bring into concrete reality only a single property of an electron, not the electron itself. When this experimental fact is projected onto the entire observed universe, the result is shocking. It appears that some larger system or a final observer is required if the universe is to be what it is.

This implication of the Copenhagen interpretation came to light at a time when theology and science were on diverging paths in their description of reality. So most scientists at first refused to even consider the need of a final observer for fear of being ridiculed as religious nuts.

Mathematician John von Neumann attempted to add mathematical credibility to the Copenhagen interpretation by formulating an axiom that recognizes the need for a chain or series of intelligent observers if the universe is to be what it is. But his axiom also states that there can be no last observation and therefore, no final observer. The axiom, however, did not resolve the matter, and scientists remained unsatisfied. For many years scientists' inability to explain away the need for a final observer helped keep this shocking implication of quantum mechanics, and inquiry into its meaning, isolated among a closed circle of scientists. They discussed it more as a form of amusement than as a serious study.

Even though experiments demonstrated the validity and accuracy of quantum mechanics, scientists refused to admit that the implied need for an ultimate observer had any importance.

But recent work on the quantum theory of the universe has stimulated new interest in the implications of the anthropic cosmological principles. As a result, and increasing number of scientists are coming to believe that there is an ultimate observer, and some are now willing to refer to that probable being as the Creator, or God.

John D. Barrow and Frank J. Tipler believe that the fact that we, as intelligent observers, can bring into existence only a small-scale property like the spin of the electron leads to the conclusion that there is an ultimate observer who is responsible for coordinating separate intelligent observations and bringing the entire universe into concrete existence. They go on to state that "this joining of a sequence of observers continues — and even includes the observations made by different intelligent species elsewhere in the universe — until all sequences of observations by all observers of all intelligent species that have ever existed and

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How science discovered God...

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ever will exist, of all events that have ever occurred and will ever occur are finally joined together by the final observation by the Ultimate Observer."[5]

Merging quantum cosmology with the anthropic principles leads to the conclusion that the sequence of observers recognized by Von Neumann's axiom can be extended to include an ultimate observer because the ultimate observer is not limited by being a part of the universe to which quantum law applies. In other words, the ultimate observer is not subject to the laws of quantum mechanics that govern our observed universe, and hence is not subject to the conditions of Von Neumann's axiom.

Who is the ultimate observer?

Once their calculations had made room for an ultimate observer, scientists began to try, without much success, to find out mathematically what or who the ultimate observer is. Paul Davies, a theoretical physicist, notes that "in recent years physicists have been interested in the subject of quantum cosmology — the quantum theory of the entire universe. By definition, there can be nothing outside the universe to collapse the whole cosmic panorama into concrete existence (except God, perhaps?)."[6]

Developments in the field of quantum cosmology led to consideration of the possibility that space and time together might form a finite four-dimensional universe without singularities or boundary. Singularity is a mathematical point at which all known laws fail to function and matter no longer exists. Big bang cosmology assumes that the universe originated as a singularity that exploded to form all the matter and energy that compose the universe.

The absence of singularities could be taken to imply that the universe never had a beginning and will never collapse, but will continue to exist forever. The finite but unbounded universe may be compared to the surface of the earth. One could travel around the earth forever without finding the end or the beginning of the surface. In like manner, the universe may be finite but without boundaries. This property of the universe plays an important part in our understanding of the nature of reality. Stephen Hawking contends: "But if the universe is completely self-contained, with no singularities or boundaries, and completely described by a unified theory, that has profound implications for the role of God as Creator."[7]

The universe as defined by the new cosmology requires unique and special conditions that must be selected a priori. In pondering an answer to questions about the initial conditions and what or who selected them, Hawking suggests that "one possible answer is to say that God chose the initial configuration of the universe for reasons that we cannot hope to understand. This would certainly have been within the power of an omnipotent being." He goes on to point out that "it would be very difficult to explain why the universe should have begun in just this way, except as the act of God who intended to create beings like us."[8]

Hawking's final conclusion does not require that the universe has a Creator, but he certainly leaves the door open. He concludes his book by commenting that if we ever should find the answer to why the universe exists, "then we would know the mind of God."[9]

Science and theology are coming to the same conclusions — we need God. Theologians need no longer apologize for making a leap of faith — scientists are coming to see the necessity of this leap. Even though cosmologists are far from claiming to be able to prove that God exists, the evidence certainly points strongly to the need of a Creator. In his summary of the dilemma of the new physics, Dr. Tony Rothman gets almost theological: "The medieval theologian who gazed at the night sky through the eyes of Aristotle and saw angels moving the spheres in harmony has become the modern cosmologist who gazes at the same sky through the eyes of Einstein and sees the hand of God not in angels but in the constants of nature . . . .

"Even as I write these words my pen balks, because as a twentieth-century physicist, I know that the last step is a leap of faith, not a logical conclusion . . . .

"When confronted with the order and beauty of the universe and the strange coincidences of nature, it's very tempting to take a leap of faith from science into religion. I am sure many physicists want to. I only wish they would admit it."[10]

In his recent book *The Great Design*, Dr. Robert K. Adair, associate director of Brookhaven National Laboratory, contends: "Physicists are searching for a simple idea that fits the complexity of experience so well that the fit cannot reasonably be accidental. Perhaps we are close to God's Equation; perhaps we are far away. But most physicists believe that we are at a point in scientific history when a search for that Equation can be sensibly conducted."

And in pondering the utility of scientific inquiry into Creation, Dr. Adair draws a conclusion that may offend some who believe that the Bible teaches that all matter in the universe was created just 6,000 years ago, but will prove encouraging to other creationists: "Although the world is not flat and was not constructed 6,000 years ago, physicists know nothing that contradicts the cores of various religious beliefs held by most people today, and some have found a deeper faith as a result of their inquiry."[11]

It is clear that research in quantum cosmology points researchers' minds toward God. This new development in science may have come as a surprise to scientists and some religionists. But theologians have always known that the heavens declare the glory of God!

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[1]John D. Barrow and Frank J. Tipler, *The Anthropic Cosmological Principle* (New York: Oxford University Press, 1986), pp. 15-23.
[2]P.C.W. Davies and J.R. Brown, *The Ghost in the Atom* (Cambridge, Mass.: Cambridge University Press, 1986), pp. 9-12.
[3]Barrow and Tipler, p. 458.
[4]Davies and Brown, p. 12.
[5]Barrow and Tipler, pp. 470, 471.
[6]Paul C.W. Davies, *God and the New Physics* (New York: Simon and Schuster, 1983), p. 116.
[7]Stephen Hawking, *A Brief History of Time* (New York: Bantam Books, 1988), p. 174.
[8]*Ibid.*, pp. 122-127.
[9]*Ibid.*, p. 174.
[10]Tony Rothman, "A 'What You See Is What You Beget' Theory," *Discover*, May 1987, p. 99.
[11]Robert K. Adair, *The Great Design* (New York: Oxford University Press 1987), pp. 345, 365.

Members of the Reed Glasmann family recently established a pediatric neurology research endowment fund. Shown clockwise from left, are Dean Behrens, Peggy Glasmann, Reed Glasmann, Dr. Sanford Schneider, and the Glasmann children: Jessica, Jayme, and Jackie.

Endowment for pediatric neurology established

A pediatric neurology research endowment fund totaling nearly $50,000 has been established at the School of Medicine by the Reed Glasmann family, according to B. Lyn Behrens, MS, BS, dean of the School of Medicine.

The $49,545.14 endowment gift by the Glasmann Foundation was made to Sanford Schneider, MD, professor of pediatrics, for research use in the area of pediatric neurological research.

According to terms of the endowment guidelines, interests and dividends earned from the endowment fund (less 10 percent that is to be returned to the principal to protect the endowment from inflation), will be used by Dr. Schneider and his colleagues in various pediatric neurological research projects.

"We are very pleased to accept this generous endowment gift," says Dr. Behrens. "Endowment gifts like this are the lifeblood to our ongoing research efforts here at the School of Medicine."

The Glassman Foundation is a private foundation established in 1969 by Jay W. Glasmann.

Dr. Brailsford...

Continued from page 16

that the discoid shape was the ideal shape for oxygen transport and diffusion.

I kept my thoughts to myself, since I didn't think that the enthusiastic youth leader who had arranged for the film to be shown would appreciate my voicing such reservations. I did, however, vow that if the opportunity ever presented itself I would pursue the questions raised by the film. When I discussed the possibilities with Douglas, he was enthusiastic. His doctoral dissertation had been in the field of hydraulics, and as a practical matter he could calculate stresses in steam boilers and determine the minimum energy configuration in a stressed plate.

Together, we pursued the question, "Why is the red cell shaped as it is, and what useful purpose is served?" — a question that 17 years and 15 papers later we still cannot completely answer. In recognition of our contributions to that particular field, Douglas and I were invited to write a chapter on red cell shape for a recent textbook on the red cell membrane. It was during the preparation of that chapter that Douglas first became ill. The book appeared in print a fortnight before his death.

During the past 17 years, Douglas had led an entire generation of medical technology students through the intricacies of instrumentation, hydraulics, and electronics. He has designed and built research equipment for his own research studies and equipment that has enabled other researchers to pursue theirs. He had shared his time unstintingly with the undergraduate students that descend upon my laboratory each summer. Nor did his interests narrow as he grew older. Questions about cosmology, archeology, and geology excited his imagination and called forth his creativity.

I well remember a Sabbath morning in the summer of 1985 during the SA Forum geology field trip. Douglas Brailsford was talking on the Citizen's Band radio about his step-function theory of cosmology and its applicability to such deposits as the famous fossil forests of Yellowstone National Park. The occupants of some 20 cars listened to him and argued with him the merits of his case as our caravan left the borders of Yellowstone and headed east. In the last 20 months, Douglas wrote up his proposal in a formal paper on the subject, and he and Rita hosted a large discussion group on the topic at their home.

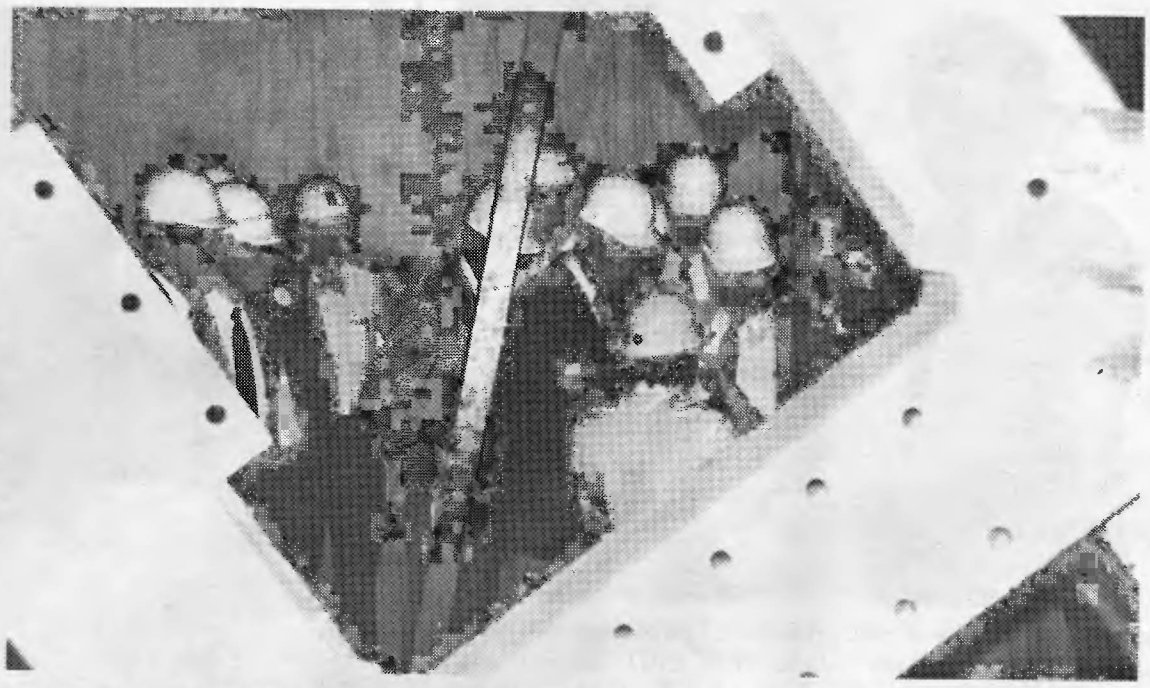
His wide-ranging interests were matched by his generosity with his time and his talents. He could be found in the audio booth of this church most weekends and often assisted with meetings during the week. His unassuming demeanor belied the extensive knowledge he possessed of audio equipment and how to keep it functioning. After all, here was a man who had been part of the broadcast industry almost since its inception. I doubt that few who worked with him ever knew that he had begun his career at a place and time where the very first commercial radio transmitter in the world could still be viewed.

He lives on, however, in our remembrances of him and in the influence for good that he exerted over all who knew him. Many of you here today are not scientists. Nor did you ever talk with him about engineering. His office was for you a haven of inspiration when you were seeking hope and direction.

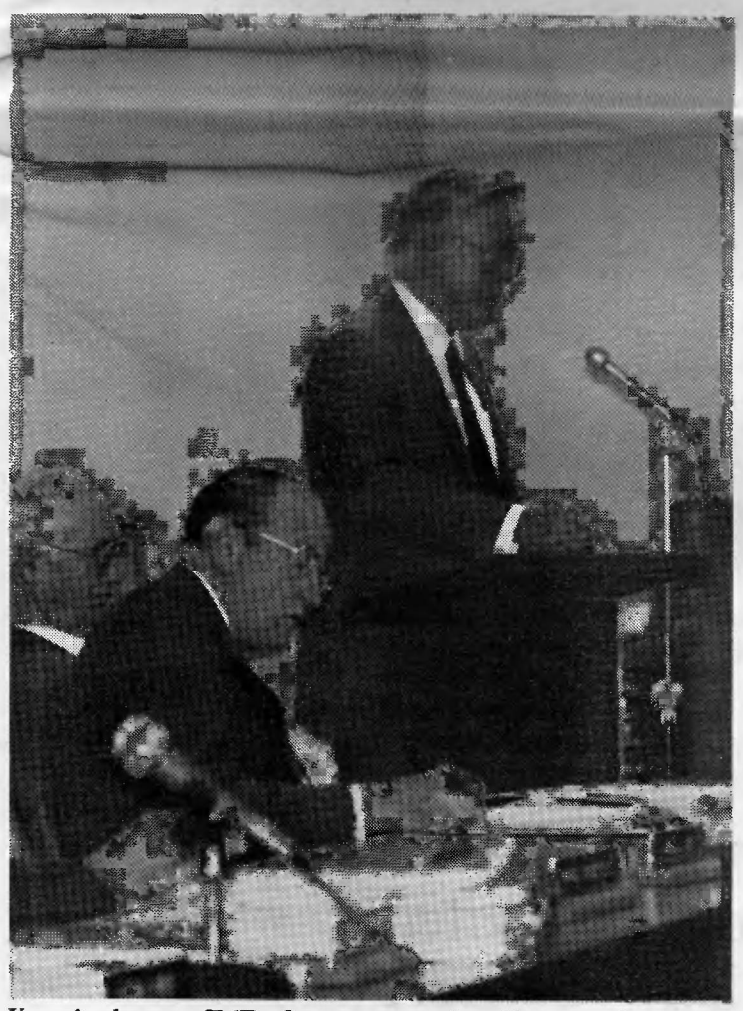
The home of Douglas and Rita on Fern Avenue here in Loma Linda was likewise a place of joy and peace, an encouragement to all who visited and a profound statement of the power for good exerted by two loving Christians.

His contributions to the field of science will ensure that his name will not soon be lost to sight. I suspect, however, that the heavenly record has been kept on the impact that his life had on the lives of his students, his fellow faculty members, his coworkers, and those of us who were privileged to share with him the odyssey of research.

Goodbye, Douglas. We miss you.



Members of the Loma Linda University Medical Center Board of Trustees, meeting on Wednesday, June 21, concluded their meeting with a tour of the proton beam cancer therapy treatment center under construction at the southeast corner of the Medical Center. The facility, designed to treat cancerous tumors without harming surrounding healthy tissue, is expected to be opened in the spring of 1990.



Kay Andersen, EdD, former executive director of WASC, speaks to the LLU board about the history of LLU's accreditation.

Trustees defer planning decision...

Continued from page 1

ference of Seventh-day Adventists, learned that they view the two campuses as having differing goals and methods of operation. The deans said that the needs and the will of the faculty on the Loma Linda campus are quite different from the needs and the will of the faculty on the La Sierra campus.

During a question-and-answer session following Dr. Woods' remarks, he pointed out there are a number of close working relationships that would continue, as well as the development of new relationships, should the campuses move toward separate identities.

The next meeting of the Board of Trustees will begin on Sunday, August 27.

Robert Teel, PhD, associate professor of physiology and pharmacology (right) presents Roland Aloia, PhD, associate professor of anesthesiology in the School of Medicine, with the annual Sigma Xi Research Merit Award for a paper Dr. Aloia authored which was published in the Feburary 1988 *Proceedings of the National Academy of Science.*

Sigma Xi recognizes 15 new members at spring banquet

Fifteen new members were recognized and honored at the annual Sigma Xi spring banquet held in May, according to Robert Teel, PhD, associate professor of physiology and pharmacology, and local chapter president.

Honored as new members were Richard Alexander, PhD, laboratory director, San Bernardino County Health Department; Burtin Brin, PhD, School of Health; Bert Connell, PhD, chairman, department of nutrition and dietetics, School of Allied Health Professions; Steven Dale, PhD, perinatal biology, School of Medicine; John Farley, PhD, mineral metabolism laboratory, Jerry L. Pettis Memorial Veterans Administration Hospital; Joyce Hopp, PhD, dean, School of Allied Health Professions; Mark Johnson, PhD, department of microbiology, School of Medicine; Edwin Krick, MD, MPH, dean, School of Public Health; K. H. Lau, PhD, mineral metabolism laboratory, VA hospital; Thomas Linkhart, PhD, mineral metabolism laboratory, VA hospital; Peck Ong, PhD candidate, department of microbiology, School of Medicine; William Pearce, PhD, perinatal

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Distinguished professor featured in New Yorker

A three-part article featuring the research work of W. Ross Adey, MD, PhD, distinguished professor of physiology and pharmacology in the School of Medicine, and associate chief of staff for research at the Jerry L. Pettis Memorial Veterans Administration Hospital in Loma Linda, is currently appearing in *The New Yorker*, a weekly magazine published in New York City.

In part one of the article entitled "Annals of Radiation: The Hazards of Electromagnetic Field," series author Paul Brodeur detailed Dr. Adey's early work in electromagnetic fields.

In part two entitled "Something is Happening," [June 19, 1989] Mr. Brodeur tells about Dr. Adey's move from the University of California at Los Angeles where he had spent 23 years, to become associate chief of staff for research and development at the Jerry L. Pettis Memorial Veterans' Hospital in Loma Linda, and distinguished professor of physiology and pharmacology and assistant dean for research in Loma Linda University School of Medicine.

In his article, Mr. Brodeur relates the extensive studies that Dr. Adey and Suzanne M. Bawin, PhD, associate research professor of physiology and neurosurgery in the School of Medicine, had conducted in the area of electromagnetic fields.

The final installment of the article is in the June 26 issue of *The New Yorker.*

Fifteen public health students travel to Washington, D.C.

Fifteen students from the department of international health in the School of Public Health traveled to Washington, D.C., during the middle of June to attend the annual meeting of the National Council of International Health.

During their stay, the students visited the United States Agency for International Development.

Pep talk

Several members of the Los Angeles Raiders football team visited pediatrics units at Loma Linda University Medical Center on June 19. One of the patients they talked with ws Floyd Iverson, 5. From left to right around the bed are Vance Mueller, running back; Rory Graves, offensive lineman; Raiderette Chie Ohara; Steve Smith, running back; Raiderette Jacqueline Walker; and Willie Brown, former defensive back and a member of the Hall of Fame. The Raiders gave pennants and pictures of the whole team to the children, as well as to a number of employees.

Loma Linda University president Norman J. Woods, PhD, accepts an unrestricted gift from Ernest Hwang, assistant vice president for Security Pacific National Bank, Riverside office; and Joe Colladay, first vice president of Security National Bank. Security Pacific National Bank has been a supporter of Loma Linda University for many years.

Concert pianist scheduled for Redlands Bowl concert

Timothy Ehlen, concert pianist, will be the soloist with the Redlands Bowl Festival Symphony, Frank Fetta, conductor, at the bowl on Tuesday, July 18, at 8:15.

Mr. Ehlen is known to audiences throughout the United States as an outstanding young solo and chamber music player.

Recent performances by Mr. Ehlen include a formal New York debut at Alice Tully Hall, Lincoln Center, which was received with critical acclaim; recitals in many other major American cities and at the Aspen Music Festival; and concerto appearances in Cincinnati and Los Angeles.

He performed in 1968 at several locations in Spain as a participant in the first government sponsored musical exchange between that country and the United States.

Preceding the 7:30 p.m. concert, there will be a community sing directed by Curtiss Allen.

There is no charge for the concert, but an offering will be taken.

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